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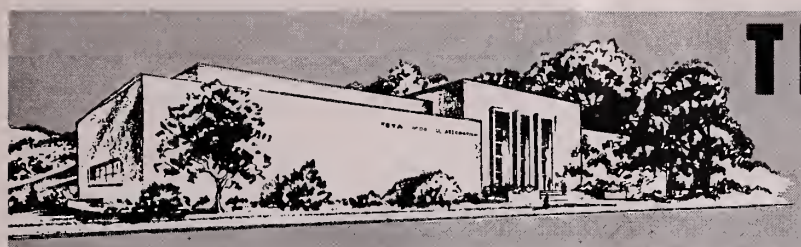

TEXAS State Journal of Medicine

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

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Caduceus at the Crossroads

The threat of sudden massive thermonuclear warfare poses potential medical problems unprecedented. Consider the problem of a city, population 100,000, for example, if it was hit by one Hiroshima-type A-bomb—long since outdated by bigger and more destructive weapons.

There would be at least 40,000 persons wounded to varying degrees, all needing treatment. There would be needed a skilled physician to make the decisions of whom to treat first; whom to treat last; who, if treated immediately, would be useful as, perhaps, a litter bearer; who, if told what to do, could treat himself.

So impossible does the vast and awesome task at first appear that "The mind rebels and tries to turn to immediate and more manageable tasks," as Horton says. "But we cannot shrug this problem off; it refuses to go away."

Widespread apathy, indifference, and unpreparedness predispose to confusion, panic, and hysteria when controlled action and logic are needed. This most certainly augments the promise of early victory for a ruthless aggressor who can be expected to use any weapon, regardless of the consequences. Even the nominal 11 year old A-bomb promptly stopped World War II.

Despite the awfulness of this question proposed for solution—which for sheer magnitude is totally new in the annals of mankind, a note of optimism has been sounded by the bold, energetic faculty of the Army Medical Service at Fort Sam Houston.

These select men of vision from Brooke Army Medical Center, Walter Reed Army Hospital, and other key centers

are working and teaching flexibly and assiduously on every conceivable aspect of catastrophic medicine. Anyone who has attended one of their dynamic courses on "Management of Mass Casualties" comes away with a realization that all of the alarms that have been sounded are not just talk—they are a call for survival. And, above all, one recognizes that the call must be directed to the grass roots doctor, for the boundaries between civilian and military medicine rapidly become less distinct with modern weapons.

There is an urgent need for plans, organization, and the establishing of priorities for treatment in the event of thermonuclear warfare. Your Texas Medical Association and county society have committees for dealing with civil defense, but you yourself must exert leadership and undertake prior planning if you are to survive and function effectively in an emergency and the dozen pair of hands you direct are to do likewise. There is no alternative.

—J. C. Dunlap, M. D.
Waco, Texas

Thompson Bequests Promote Medical Education

Medical education in Texas—both for the student in medical school and for his practicing elder—received enviable support in bequests of the late Dr. Sam E. Thompson of Kerrville.

Settlement of the estate of the late physician—respected and beloved by the colleagues who had elevated him to the two highest posts the profession of Texas has to offer, President of the Texas Medical Association and chairman of its Board of Trustees—makes available approximately half a million dollars for establishment of the S. E. Thompson Scholarship Fund and $50,000 to the Texas Memorial Medical Library Association. Income from the scholarship fund, left in trust to the Board of Trustees of the Texas Medical Association and the dean of the University of Texas Medical Branch, is to be used "to assist poor and deserving men and women students, citizens of the State of Texas," at the Medical Branch "who without such assistance might not be able to obtain the advantage of a medical education" by loaning them sums not to exceed $3,000 per student at an interest rate not to exceed 4 per cent per annum. Income from the bequest to the Library Association is to be devoted to building up the Memorial Library of the Texas Medical Association, a source of medical information to practicing physicians all over the state.

Dr. Thompson had made no secret of his plans for the Library, promising sometime ago his support of this project after his death as he had supported it by gifts and interest during his lifetime. However, it was not generally known that the bulk of his estate, the remainder after certain specific bequests had been covered, was to be left to aid medical students. The details of this loan fund are yet to be worked out by the trustees, but undoubtedly the fund will make possible a medical career for many young men and women who otherwise would be denied the opportunity to enter this field of service.

With today's clamor for more and well qualified physicians, Dr. Thompson's bequests will serve an admirable purpose.

Principles Remain

Introduction of the Medicare program for dependents of military personnel does not change the obligation of the medical profession to give the best possible care for the lowest reasonable cost. As Dr. Milford O. Rouse has pointed out in his President's Page, Texas doctors have a responsibility to make charges for service under this program—if they choose to participate—that are in keeping with their usual fees; they should not take advantage of a situation that might permit payment of fees in excess of their customary professional charges.

As is explained elsewhere in this *Journal,* the Texas Medical Association, acting in accordance with a directive of the House of Delegates, has entered into an agreement with the Department of Defense to take part in the program authorized by public law to furnish dependents of military personnel certain types of medical and hospital care by private physicians and hospitals at the expense of the government. The agreement includes an allowable schedule of maximum fees (arrived at in negotiations by the Association's representatives after careful study of fees currently charged in the state) which should cover most customary fees satisfactorily. Since it does provide for maximum fees, however, the schedule opens the door for increased fees unless each doctor presenting a statement for payment maintains the integrity of his usual practice in setting charges.

The physicians of this country have been proud of the type of medical service they have provided at total costs that are remarkably low. It would not be in keeping with the traditions of the profession to allow a general upward drift in fees to result from such a program as Medicare, nor should it be forgotten that payments under the program come from public taxation.

Granted that most physicians do not approve the idea behind the Medicare legislation, the law is in effect; the official body of the Texas Medical Association authorized to take such action has voted to cooperate in carrying it out; any individual physician has the prerogative of accepting patients under the program or not, as he chooses; and the program does not change the physician's responsibility to his patient, the public, or himself.

To End the Search

For several years, readers of the *Journal* have had to search at random through its pages for certain of the smaller items of interest. Beginning with this issue, a more complete table of contents, to be published each month on advertising page 5, will simplify that search.

The *Journal* continually strives to give better service to Texas doctors, and it is hoped that an expanded table of contents will be a useful addition.

Yours for the Asking

Officers of county medical societies will be made a splendid offer by the Texas Medical Association in Austin January 26 and 27. On those days, officers who attend the Conference of County Medical Society Officials may learn from one compact program what is expected of them in their new roles, and how they can best carry out their duties. In addition, they may attend the legislative conference and build up their knowledge of medicolegal problems facing the medical profession. They also will be welcome for the Association's first indoctrination program. Although the latter is primarily for new members, it will contain much information which older members might not know.

It is important that county society officials be well informed, both about their local and state organizations and about the broader outlook for the profession as a whole. Young men coming into the Association look to their local officers to answer their day to day questions about its activities. Local newsmen depend on officers of county societies for accurate news stories concerning medical affairs, and concise, accurate answers increase the chances for the right sort of publicity, and therefore for an informed public. Patients and acquaintances, too, want to know just what lies behind a doctor's thinking.

The January conference offers an opportunity for doctors to learn more about their organization. Here, into one week end program, will be packed helpful ideas and information for both new and old members. Furthermore, there will be a chance to exchange ideas with

officers from throughout the state. Knowledge gained at the conference will aid any official in supplying the information and leadership to make his local society rank favorably with the best in Texas.

Councils and committees also will be meeting during that time, as will the Executive Council. The growth of the Memorial Library will be marked by the presentation of the twenty-five thousandth volume—the technical dividing line between large and small medical libraries.

All told, there is much to learn for those who come with that in mind. It is hoped that many will.

★ Current Editorial Comment

Modern Science and An Ancient Art

Medicine as related to the physician, dentist, or nurse is an ingenious blending of two essential ingredients, namely, science and art. The latter of these is not a frill to be tacked on as an afterthought, but is a necessary ingredient which must run through the very warp and woof of medical practice in order to make the whole effective.

The Science of Medicine is that broad river of knowledge fed by the myriads of contributary streams from whose wide expanse men may drink and assuage their collective and individual scientific thirsts. Contributions of the past have become stepping stones of the future, and modern scientists have built upon the findings of past discoveries.

The Art of Medicine, on the other hand, functions in that restricted realm of relationship between the scientist and his beneficiary, the much-discussed and much-misunderstood doctor-patient relationship. This essential attribute of the complete doctor cannot be passed on from generation to generation as blocks of factual data upon which the recipient student may build his scientific research, but rather each neophyte must learn anew its delicate mechanism. As an ingredient, the Art of Medicine augments the therapeutic effectiveness of the Science of Medicine, lending the catalyst of human warmth.

There is substantial evidence that the public relations of the health professions are at a rather low ebb, and there are those who feel that this trend has been closely related to the diminishing proportions of the ingredient of the Art of Medicine. The only permanent and certain technique of developing a high level of mutual respect between the doctors of this nation and the populace at large breaks down to the composite unit of the relationship of one doctor and his patient. If this fails, no amount of public education efforts will succeed.

What are the factors contributing to the gradual decline in the practice of the Art of Medicine? First and foremost, one must consider the rapid growth of medical science itself. When the horizon of medical knowledge widened to the point where no one man could grasp all its details, the natural sequence was the fractionation of this available information to the point of individual comprehension. Concomitant trends were those of fragmentation of the human body into areas of specialist responsibility, all of which were contributing factors to a gradual depersonalizing process.

A second genetic element in the trend toward the impersonalization of the practice of medicine is the philosophy of American education in general, and premedical education in particular. Technical training is being emphasized to the relative exclusion of the liberal

Modified from an address presented to the graduates of the Army Medical Service Officer Orientation Course, Fort Sam Houston, Texas, August 10, 1956, by Dr. Casberg, recently appointed vice-president for medical affairs of the University of Texas.

This department of the Journal *presents editorial comment on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and others closely associated with the medical profession of Texas. Contributions not to exceed 500 words are invited.*

arts. When carried to its final conclusion, the product of such an educational effort becomes a technician rather than a person of professional caliber.

With the absorption of some 50,000 physicians into the Armed Forces during the war years, the remaining civilian doctors of necessity increased their patient loads to the point where, due to the pressure of time, little opportunity remained for the niceties of medical practice. It is possible that customs initiated by this emergency were never fully relinquished and contribute to impersonal practice. Other factors which may have some bearing are the habit patterns developed by the thousands of doctors who for varying periods of time have practiced in uniform during the past 15 years. Though there is no fundamental reason why a doctor, dentist, or nurse, in uniform is any different from this same person in civilian clothes, there are certain implications associated with the freedom of choice which may create a partial barrier between the parties involved.

Great is the reward reaped by those whose practice of medicine is flavored by the proper blending of the Science and the Art of Medicine. The benefits are twofold: first, and more important, better patient care, and second, a personal sense of gratification on the part of the doctor. To those who have practiced medicine, no reward equals that of sincere patient gratitude and the respect of associates, both lay and professional.

Let us each leaven the loaf of medical practice with the warmth of human interest, the Art of Medicine. Under the pressures of scientific progress, let us not forget that our ultimate mission is the service of man. Dr. Albert Schweitzer once said, "I know not what your destinies will be, but this I do know: those of you who will find real happiness will be those of you who will have sought and found how to serve."

—MELVIN A. CASBERG, M. D.,
Austin, Texas.

♦ Dr. Casberg, University of Texas, Austin.

Coming Texas Medical Association Events in Austin

CONFERENCE OF COUNTY MEDICAL SOCIETY OFFICIALS

10:30 a. m., January 26

Featured Speakers: C. Joseph Stetler, Chicago, Director, Law Department, American Medical Association
Olin Teague, Bryan, Representative in Congress, Sixth District of Texas
Mary D. Cain, Summit, Miss., Editor and Manager, *Summit Sun*

INDOCTRINATION PROGRAM

9:30 a. m., January 26

Medical organization, economics, public relations, legislation, malpractice

LIBRARY PRESENTATIONS

3:50 p. m., January 26

Recognition of growth of Memorial Library and its benefactors

COMMITTEE MEETINGS

January 25-27

EXECUTIVE COUNCIL MEETING

9 a. m., January 27

Details in December and January Journal, Organization Section

President's Page

YOUR PERSONAL HEALTH INVENTORY

You don't have to make resolutions on New Year's Day, but it is an ideal time to take inventory. It is a poor commentary on the medical profession that the life expectancy of physicians is less than that of other male citizens of the United States and that hundreds lose their lives or become physically incapacitated each year from illnesses that might have been prevented or detected enough for effective therapy—if only they had taken time for a thorough physical examination. How can you advise patients to consult you at first evidences of trouble or at regular intervals when you never take proper thought of your own physical well being?

The start of a new year or your birthday is an easily remembered time to have a health inventory. Your associate, or doctor friend down the hall, would feel complimented to be asked to check you over; and you will do him a favor by reminding him of the value of an annual physical examination. If you prefer to go to the nearest medical center, you will find diagnosticians there glad to serve you.

Do yourself and your family a favor by planning now for your personal health inventory!

ETERNAL VIGILANCE IN ORDER!

The beginning in December of participation by Texas physicians in the Medicare plan for dependents of military personnel calls for sober thinking. Doctors did not ask for the law—and by and large disapproved it, feeling that it would be better for Congress to increase the pay of military personnel sufficiently for them to provide medical care for their families by private physicians as their neighbors do.

It is easy to foresee the tendency of some congressmen to seek to expand the principle of medical care of other segments of our population by private physicians and hospitals at the expense of the federal government. Experience of only a few weeks with Medicare already has pointed up some of the inevitable annoyances, unnecessary expense, and possible deterioration of the close rapport characteristic of

private patient and private physician. Texas doctors are trying to cooperate, but are also keeping their eyes open.

Medicare was predicated on the basis of the Defense Department paying the fees prevailing in the community where service is rendered. The Trustees and the Council on Medical Economics of the Texas Medical Association agreed on a schedule of maximum fees that will be allowed—fees that should cover most situations satisfactorily. If a Texas doctor should charge more than his prevailing fee, he will be doing a disservice, because we have an obligation to maintain the highest standards of medical care at the most reasonable cost possible.

Your President has promised to ask the Council on Medical Economics and the Trustees to give the House of Delegates in April a complete summary of the working of Medicare in Texas.

A BILATERAL PROPOSITION

An excellent suggestion has been made by some Houston doctors based on two premises: (1) we are not happy with the implications of Medicare payments; (2) the medical schools of our country need financial support. We can help keep our consciences clear and aid medical education at the same time by giving extra income derived from Medicare to the American Medical Education Foundation or the medical school of our choice. Think it over—then act!

THOROUGH EXPLANATION IS BEST SELLING ARGUMENT

Every Texas physician should be thoroughly familiar now with the plan of group disability insurance available to us, following the recent detailed review of the plan that was distributed.

Check thoroughly your own disability coverage. If it is not sufficient, act now to come in on the Texas Medical Association plan, regarded by insurance men as the most flexible to be secured. Applications are increasing, according to reports from the administrator of our plan.

Milford O. Rouse, M.D.

ORIGINAL ARTICLES

Present Day Cervix Cancer

HERBERT E. SCHMITZ, M. D., F.A.C.S.

Chicago, Illinois

FOR THE PAST decade and a half there has been an increased interest in the possibilities for treatment in cervix cancers. Increased knowledge of the physics of radiation and the improvement in irradiation technique had established roentgen therapy as the most effective weapon against this type of cancer. The revived popularity of surgery has challenged the status of irradiation therapy. This recent interest has been due principally to the fact that radical pelvic surgery with the aid of transfusions, antibiotics, and improved anesthesia now can be performed almost without mortality.

Dr. Herbert E. Schmitz, professor and choirman, Department of Obstetrics and Gynecology, Stritch School of Medicine of Loyola University, presented this discussion os a refresher course at the 1956 Annual Session of the Texas Medical Associotion in Galveston, April 23.

Although radical pelvic surgery made possible with transfusions, antibiotics, and improved anesthesia has a place in treatment of radioresistant malignancies, the best basic method for treating the majority of primary cervical cancers remains irradiation. Results in 304 cases of cancer of the cervix treated radiologically and more than 100 treated surgically are reviewed.

Further emphasis was placed on the surgical approach because of the belief that there was a better chance for cure in those cases in which the iliac nodes were involved. It was assumed that cancer cells within the lymph nodes become radioresistant and that this resistance accounted for failures in clinical groups I and II treated with roentgen ray and radium. On this premise, the patient would survive by virtue of lymphadenectomy. I believe this premise is not valid. Morton[7] found positive nodes in 39.3 per cent of a series of carcinomas treated by radical hysterectomy and pelvic lymph node dissection but not irradiated and only 11.4 per cent positive nodes in a group receiving preoperative irradiation. In Meigs'[6] most recent report, the statistics differ from those of Morton. Meigs found lymph node metastasis in 28 per cent of the irradiated patients and a 25 per cent incidence in the nonirradiated group. His end results, however, revealed an 82 per cent five year survival in the stage I and II cases with negative nodes but only a 33 per cent five year survival in those with positive nodes. It seems, therefore, that the original reason for the surgical approach has not proved tenable in the light of end results. Some of these tumors with early metastases to the pelvic lymph nodes are destroyed by irradiation while others, though not destroyed, are effectively entrapped by irradiation fibrosis. The Grahams'[4] work with vaginal smears substantiates this.

The use of nylon tubing with multiple sources of radioactive cobalt as employed by Barnes[2] or the injection of radioactive colloidal gold into the parametrium as utilized by Allen[1] represents an advance in the use of irradiation. Their techniques enable us to deliver higher doses of irradiation to the lateral pelvic wall and may increase the over-all survival rates. For surgery to obtain better results, the dissection of necessity must be more and more extensive and meticulous. This, of course, will increase the number of postoperative complications, especially to the urinary tract. Such difficulties already have been a cause for great concern as demonstrated by Thornton.[9]

One of the original criticisms of irradiation was the occurrence of normal tissue damage produced by the radium and roentgen ray. It was believed that the surgical approach would eliminate such undesirable side effects. I believe that skillfully administered irradiation seldom will cause such injury. Our incidence of fistulas following irradiation therapy at our radiation therapy unit is 1.6 per cent; this is considerably lower than that found in patients treated primarily with surgery.

It also seems illogical to attempt primary surgical removal of a lesion which has extended beyond the cervix into the paracervical tissues. Since surgery in stage II cases is concerned with tissue invaded by carcinoma, dissection of the ureter probably serves only to spread the disease rather than to eradicate it.

Despite the present day controversy then, irradiation seems to be the best basic method of treatment, but surgery is unquestionably a necessary adjunct in

selected cases. To carry this argument to its final conclusion it would be necessary to have a large enough number of cases in two comparable series with an approximately equal number of cases in each stage of the disease to evaluate thoroughly the two forms of therapy. Unfortunately no such report is as yet available.

RESULTS WITH IRRADIATION

We may obtain some idea of the compared results of irradiation and of surgery by reviewing first the five year survival rate for those patients we have treated radiologically (table 1).

TABLE 1.—*End Results of 304 Primary Cases of Cervix Cancer Treated Radiologically, 1933-1949.*

Clinical Group	No. Cases	No. Survivals	% Survivals
I	31	26	83.8
II	75	48	64.0
III	125	50	40.0
IV	73	8	10.9
Total	304	132	43.4

There are 106 cases in groups I and II with a five year survival rate of approximately 70 per cent. These results are close to the 74 per cent five year surgical survival rate of stage I cases reported by Liu and Meigs.[6] It is also possible that some cases listed as stage I and treated radiologically actually may have been stage II, whereas a stage II cancer treated surgically is never included in the stage I series. This point is emphasized by Heyman,[5] who stated that he had not yet found a series of cases treated with primary surgery that had a better end result than a properly treated irradiation group.

There are a group of cases, however, which do lend themselves to sugical consideration. These are the cases in which the primary lesion is determined to be radioresistant subsequent to therapy. In this group, failure to respond to radiation therapy, as demonstrated by repeated biopsies or cytologic studies, together with clinical evidence of failure in the form of progressive infiltration or absence of regression is sufficient indication for surgical intervention. It must be pointed out that this does not mean those cases that have received inadequate irradiation at the time of their initial therapy. In these latter cases, if sufficient time has elapsed, an adequate trial of irradiation therapy will produce a 27 per cent five year survival rate. This is demonstrated in table 2. Our selection of cases for operative intervention is confined to those absolutely radioresistant types. We have also resorted to surgery in cases with complete prolapse of the uterus in groups I and II, in patients refusing radiation therapy, and in cases in which the presence of a large myoma or a complicating adnexal mass precludes the administration of adequate radiation therapy.

TABLE 2.—*End Results of 66 Recurrent Cases of Cervix Cancer Treated Radiologically, 1946-1949.*

Clinical Group	No. Cases	No. Survivals	% Survivals
I	4	1	25.0
II	11	8	72.7
III	18	7	38.8
IV	33	2	6.0
Total	66	18	27.2

Before discussion of the end results and complications in our surgically treated cases, it would be well to review our method of therapy in the usual primary case of cervix cancer. We employ a 50 mg. straight radium capsule (1,500 mg. hours) given at weekly intervals for a total dosage of 4,500 mg. hours. Between radium insertions and subsequently, the patient receives 3,500 r to the midpelvis via the 1,000 kilovolt x-ray. This method will deliver a total of 10,500 r at point A and 4,800 r at point B. This dosage is not cancerocidal in all cases but with the aid of cancerostatic fibrosis will provide acceptable survival rates. We have not resorted to other forms of radium applicators except in selected cases in which there is some unusual growth direction of the tumor. The advocates of colpostats and the various vaginal applicators point out that a higher dosage can be delivered to the lateral pelvic wall by utilizing the vaginal fornices. The risk of normal tissue damage, especially to the ureters, and the realization that end results are actually not better makes the vaginal colpostat impractical.

If the tumor does not respond to irradiation therapy and surgery is contemplated, the patient must be thoroughly evaluated to determine, as far as possible, the extent of the disease. Pelvic examination under anesthesia, cystoscopic examination, proctoscopic examination, and lower bowel roentgen-ray studies are minimal routine preoperative procedures.

RESULTS WITH SURGERY

From 1945 through 1954, 44 radical hysterectomies with pelvic lymphadenectomy were performed. During early 1956, an additional 8 patients were operated on. There were no operative mortalities until 1955, at which time, 1 patient died on the third postoperative day. Autopsy findings revealed myocardial infarction. The three to five year survival rate was 9 of 23 patients (39 per cent).

No discussion of the surgical treatment of cervix cancer would be complete without mention of the

advanced resistant cases. Where the bladder and/or rectum has been invaded, the scope of surgery is tremendously increased. These patients are doomed and only surgery offers some hope for cure. This fact makes the high hospital mortality and low five year survival rate less appalling. It is our belief that as many patients as possible should be afforded an opportunity for cure. If it seems at all feasible to eradicate the tumor, the risk involved should be presented to the patient and the choice should be hers. This viewpoint will do little to improve surgical statistics but may save a greater number of patients.

From 1947 through 1954, we have selected 56 patients as candidates for pelvic exenteration. Four additional cases have been completed in 1956. A few of these patients were selected for other pelvic malignancies, but the majority were operated on for carcinoma of the cervix. None of the cervix cases were treated primarily with radical pelvic surgery. It was possible to complete the contemplated surgery in 37 cases, but in 19 only a palliative procedure was possible. The five year survival rate for our irradiated group IV cervix lesions remains at 10 per cent. Since the primary surgical attack could raise this figure very little, we still believe irradiation is the initial therapy of choice. Our hospital mortality rate for pelvic exenteration is 14 of 37 patients with pelvic malignancy. The difference in hospital deaths between total and partial exenteration is listed in table 3. It can be seen that the posterior exenteration has

TABLE 3.—*Extent of Operation and Hospital Mortality in 37 Cases of Cervix Cancer.*

	No. Cases	No. Deaths	% Deaths
Total exenteration	13	8	61.5
Anterior exenteration	14	5	35.7
Posterior exenteration	10	1	10.0

been more successful in our hands. Similar results have been noted by Brunschwig.[3] The causes of death in the 14 hospital mortalities are listed in table 4. Although the ultimate causes are multiple, it is our impression that badly damaged and infected kidneys are the greatest contributory factors to the high hospital mortality.

One of the greatest problems in ultraradical surgery has been finding a satisfactory method of diverting the urinary stream. Parsons'[8] technique of a left transverse colostomy above the ureterosigmoid anastomosis seems to be an excellent solution. This, of course, cannot be employed with the posterior or total exenteration. It is similar to the Bricker pouch but eliminates the prolonged procedure required to isolate a loop of small intestine. It has the advantage of continence as does the Gilchrist pouch but, again, is much simpler and consequently less time consuming. Our experience with the Gilchrist pouch has been somewhat disappointing since the procedure itself has a fairly high mortality rate. We also have had patients in whom the ureter pulled out of the pouch with resulting fistula and ultimate loss of the kidney.

TABLE 4.—*Cause of Hospital Mortality in 14 Cases of Cervix Cancer Treated by Pelvic Exenteration.*

Pulmonary embolus	1
Peritonitis	1
Hepatitis	1
Hepatorenal syndrome	1
Uncontrolable oozing postoperatively	1
Massive hemorrhage due to necrosis of iliac vessel	1
Pneumonia	1
Pyelonephritis	2
Anesthetic death	2
Cardiac failure	1
Surgical shock	1
Uremia	1

Cutaneous ureterostomies are definitely unsatisfactory. They are difficult for the patient to manage. In addition, the os tends to become stenosed, and bouts of pyelitis are frequent. The wet colostomy is not much better. Kidney infection has been the greatest cause of difficulty. One patient died approximately a year postoperatively from a fulminating pyelonephritis. She was free of disease. A second patient died eight and one-half months following surgery because of uremia. Her damaged kidneys, with ureters implanted into the colon, could not withstand the repeated assaults of a bacterial pyelitis.

We have 16 cases of cervix cancer operated upon two years ago or more (table 5). The causes of hospital deaths have been listed. Of those patients leaving the hospital, 2 died of recurrent disease within one year of surgery. Two others died of extensive kidney damage. These results are far from encouraging, but the fact that a few of these hopeless patients have returned to productive lives makes further endeavor and improvement in this line imperative.

TABLE 5.—*Survival Following Pelvic Exenteration for Carcinoma of the Cervix (16 Patients Operated Upon Two Years Ago or More).*

Hospital deaths	10
Lived less than 2 years	4
Lived more than 2 years (dead)	0
Living 2 to 7½ years	2*

*Eight patients operated upon 5 to 7½ years ago with 25% survival.

Lastly, mention should be made of those surgical procedures which are entirely palliative. With extension of the disease into the urinary tract, fistulas, infection, uremia, and ultimate death intervene. In an attempt to overcome these complications and to maintain renal function, a diversion of the urinary stream is sometimes undertaken.

A similar situation arises when invasion produces rectal and intestinal fistulas with the possibility of peritoneal contamination through leakage or obstruction. Colostomy performed as a palliative measure may be beneficial both physically and mentally, enabling the patient to carry on moderate activities for a variable period of time.

When sacral nerve involvement produces severe persistent pain with resultant drug addiction, the services of a neurosurgeon may be employed. Performing a cordotomy will relieve the pain and make living more tolerable.

Ligation of the internal iliac arteries offers another form of palliative intervention. Massive vaginal hemorrhage is sometimes controlled by this procedure and, on occasion, it decreases the rate of growth of the malignancy.

SUMMARY

Our management of cervix cancer is based on the findings and reasons mentioned. Radiation still remains the best available method for treating the majority of primary cervix lesions. The surgical treatment has not bettered the over-all end results. Radical hysterectomy and lymph node dissection does have an established position in the therapy of radioresistant malignancies. The operative mortality is low and the survival rates are encouraging. The status of pelvic exenteration has not yet been fully determined. The mortality rate is alarmingly high, but with increased experience and improved techniques a more hopeful outlook may be available to these unfortunate patients with far advanced disease.

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Therapy of Carcinoma Of the Breast

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MORE has been written about carcinoma of the breast in the past 10 years than about any other malignant neoplasm. This is proper, as it ranks first in the United States in the number of deaths from neoplasm. In evaluating the recent literature, one becomes acutely aware of contradiction and resulting confusion. This is to be expected when one is evaluating disease as insidious and variable as mammary carcinoma. It must be remembered that most persons with this disease will not be treated by large centers, but rather at the local or regional level. It is important then to extract from this maze of statistics the outstanding features of each series, compare and evaluate them, and arrive at some reasonably consistent approach to this problem. This presentation is an attempt to outline one approach, incorporating as many of the desirable features as possible.

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The authors advocate thorough evaluation of mammary carcinoma by the surgeon, radiotherapist, pathologist, and internist. In stages 1 and 2, they recommend radical mastectomy followed by irradiation. Stage 3 may be treated by simple mastectomy and irradiation or irradiation alone. When distant metastases are present, a succession of the palliative modalities available should be used.

LOCALIZED OR REGIONAL DISEASE

The curves of survival for treated versus untreated patients are somewhat parallel, but the survival rate for treated patients is significantly higher than for

the untreated.[6] It seems trite to say that we as physicians are duty bound to treat patients with this disease.

There are two groups of statistics which should be studied closely, as these appear rather important to any decision concerning management. The first is that of McWhirter,[4] who reported a large series of inoperable cases without distant metastases (essentially stage 3) with a five year survival rate of 29 per cent following simple mastectomy and irradiation. This must be compared with other large series using various approaches, most of which have shown 15 to 18 per cent survival.[7] This seems to indicate that adequate irradiation has offered a definite improvement in the survival rates. McWhirter's statistics certainly debunk many of the previous reports indicating no effect with irradiation and show that these results are apparently based on selection of poor cases and low tumor dosages. Either one believes in irradiation, or one doesn't. There is little room for inbetween thinking and applying irradiation only to those who have the poorest prognosis.

Haagensen and Stout[2] on two occasions have demonstrated that radical mastectomy is a two edged sword—its one edge curing and increasing survivals and its other actually decreasing survivals. By their criteria, questionably or definitely inoperable patients subjected to radical mastectomy repeatedly showed decreased survival when compared with similar groups not operated upon but offered the benefit of other forms of therapy. In addition, no cases in this group were cured by the operation. It seems then that some criteria of operability should be established and strictly adhered to. This is best achieved when the surgeon, the radiotherapist, and if possible the pathologist see all patients originally and discuss definitive therapy. A minimal work-up should include chest and bone survey films to make a reasonable attempt to rule out distant disease. Fewer patients will be subjected needlessly to radical surgery when this program is carried out before definitive therapy.

The average general surgeon who sees 10 cases per year would have to practice 15 years before he would have 100 cases with five year follow-ups, and 20 years for the same number of cases with 10 year follow-ups. Then, too, 100 cases is a small number on which to evaluate results. It would seem then that evaluating one's own experience in this disease is probably inferior to using the results obtained in large institutions where many hundreds of cases are well studied and well followed. Therefore, we have accepted the work of Haagensen and Stout[2] in reference to the criteria of operability because of their large series, consistency of technique, outstanding pathologic work-up, and adequate follow-up. Their criteria of inoperability are as follows:

1. Extensive edema of skin over breast.
2. Satellite nodules in skin over breast.
3. Intercostal or parasternal tumor nodules.
4. Edema of the arm.
5. Proven supraclavicular metastases.
6. Inflammatory type carcinoma.
7. Distant metastases present.
8. Presence of any two of the following:
   a. Ulceration of skin.
   b. Edema of skin of breast limited to less than one-third of the breast.
   c. Solid fixation of tumor to the chest wall.
   d. Axillary nodes measuring 2.5 cm. or more in transverse diameter proven to contain metastases.
   e. Fixation of axillary nodes to the skin or deep structures of the axilla.

In following out these criteria no patient is denied the benefit of cure, yet none is subjected to a useless and possibly harmful procedure.

Since McWhirter's methods have not improved upon the results with radical mastectomy, that procedure still should be the approach of choice provided the complications are not many and satisfactory criteria of operability are observed to protect those patients who might be harmed rather than helped by the procedure.

Taking all of these facts into consideration, radical mastectomy plus adequate irradiation for operable cases theoretically should give the best results. Inoperable cases probably are handled best by the true McWhirter approach of simple mastectomy plus irradiation when this is feasible.

In terms of irradiation therapy, the dosage should be sufficiently high to get the desired effect. It is true that no absolute figures have been established, but McWhirter's dosages of 3,750 in three weeks delivered to the tumor bearing areas of chest wall, axilla and supraclavicular and ipsilateral internal mammary nodes should be taken as a minimum base line because of his results utilizing this dosage range. It must be remembered that this dosage may not be quite as effective in terms of biologic response in the presence of a decrease in vascular bed following radical resection, but this remains for further evaluation. In addition, this dosage can be given without significant complication following radical mastectomy if properly planned and carried out. As McWhirter has pointed out, it is necessary that one utilize at least a 250 kilovolt machine with sufficient filtration to achieve a half-value layer of 3.5 mm. of copper or more in order to get these dosages. On occasion one will have to increase the target skin distance to some 80 cm. in order to achieve this, even with this half-value layer, to prevent severe skin reaction.

One might ask, "Why use irradiation when the axilla is negative?" There are several good reasons for this. First, in the pathologic stage 1 group, the survival rate is between 70 and 80 per cent in the first five years but drops significantly to approxi-

mately 50 per cent in 10 years, which indicates that there is disease beyond the breast in a large percentage of cases. The second factor is the pathologic study of the axillary contents following resection. This varies from taking one or two sections to the so-called clearing technique. It has been shown several times that the more extensive the sectioning of a specimen, the higher the incidence of positive findings in the axilla. The exact procedure that is done in any one institution, however, must be limited by the ability to do a reasonably extensive job. Past series by outstanding men have shown 33 per cent positive findings on restudy of previously reported negative examinations by the same pathologists.[5] These two facts certainly are in favor of the addition of irradiation, even in those cases with negative axillary findings.

We have applied this approach to a significant number of patients with a minimal complication rate.

DISTANT DISEASE

Every physician, no matter what branch of medicine he pursues, will see patients with incurable neoplasm and may be expected to care for these patients to the end. This discussion will outline the use of existing knowledge in the delaying action which retards the growth of incurable carcinoma of the breast. Palliative therapy of carcinoma of the breast requires planned rather than haphazard, application of known methods of treatment, and planning should be done with a definite intent before treatment is embarked upon. The simple presence of neoplasm does not mean that therapy is necessary. In fact it may not be desirable. Because there are so many different modalities of therapy available, it is necessary to apply a method at a time it is most needed and most likely to succeed. This will give the patient the most relief for the maximum period of time. All of the procedures to be mentioned are self-limited in action, producing different degrees of palliation for varied lengths of time.

Therapy may be defined as the privilege of the physician to help cure occasionally and to comfort always. The measure of the physician is his willingness and ability to comfort. Since most people with malignant neoplasm will die of that neoplasm, the incurable cancer patient becomes a problem of some magnitude. If there is ever a situation in which the art of medicine is more important than the science, the care of a cancer patient should be it. This may sound simple, but physicians who have this ability do not come by it automatically, and some never achieve it. The physician who cares for a patient with incurable carcinoma of the breast must have a liking for and an interest in patients. It is not uncommon for the patient's courage and hope to exceed that of the physician. It frequently is difficult for a patient to find a physician who will treat him. Many patients who have incurable cancer are not seeking a physician to cure them, but are looking for a physician who will treat them. These unhappy people may realize that there is no cure for them if the physician has told them so. There are physicians who will say, "I am sorry, there is nothing else I can do for you. There is no use for you to come back to see me." These physicians rob the patients of hope, and it is never true that nothing else can be done for the patient.

The physician who knows that he cannot keep the patient from dying should strive to help him live. Some physicians feel frustrated because they cannot cure everyone. These incurables emphasize the physician's lack of omnipotence. An unconscious attempt to get incurables off one's hands indicates that the physician does not know how, or is unwilling, to treat sick people. If patients are well cared for in this terminal phase by a compassionate and understanding physician, quackery will perish.

The most significant contribution of irradiation therapy in this group of patients is in the management of bone pain from metastatic disease. This therapy is indicated on the basis of good clinical information even without radiographic evidence. Control of pain in early skeletal involvement is the rule rather than the exception. Retention of bone structure and weight bearing parts is certainly important as it may spare the patient a crippling disorder. As multiple areas of bone metastases occur, it becomes more difficult to control them by local irradiation to small zones. Under these circumstances some general type of approach is more desirable. Total body irradiation either by roentgen therapy or by the use of one of the isotopes is a useful and valid procedure.

In the past two years we have had a rather extensive experience with the use of radioactive phosphorus in conjunction with castration and the use of testosterone. We have followed the method described by Dr. J. R. Maxfield, Jr.[3] We have been reasonably conservative with this technique and have not seen fit to extend the dosage of radioactive phosphorus to the 15 to 20 millicuries used by Friedell and Storaasli,[1] but have used a maximum dose of 12 millicuries given over a period of approximately 10 days. This procedure is promising and helpful in the control of multiple areas of bone pain and in restoring structure to multiple areas of impending or true collapse. Low-Beer has thought that this procedure might slow down the rate of growth of the multiple sites of distant metastases to such an extent that he saw fit to recommend giving radioactive phosphorus to all women who are victims of carcinoma of the breast regardless of the stage of development. This is a rather extreme approach.

Skin manifestations of residual disease at the op-

erative site may occur in as many as 15 to 20 per cent of the patients. Although they do not indicate that disease is incurable, they are present more frequently in patients with evidence of distant metastases. The small skin nodules may be treated by either surgical excision, large doses of low voltage irradiation, or radium needle implant. With a greater number of nodules one may desire to treat the entire area with tangential breast fields with a dosage as high as the skin will tolerate using a minimum of 3,750 volts.

Castration may be beneficial in postmenopausal as well as in premenopausal women. For as long as 10 years after cessation of menses, the ovaries may secrete a significant amount of estrogen. Surgical or irradiation castration of these areas may be of some benefit to this older age group. From 25 to 35 per cent of women will receive objective as well as subjective benefit from castration. We prefer irradiation castration since it is relatively inexpensive and does not discommode the patient to any significant degree. There is not the hazard of laparotomy. There is some divergence of opinion as to when castration is indicated. There are some who will castrate all women with primary carcinoma, regardless of the extent of the disease. It is not possible to prove that this will accomplish anything that cannot be accomplished later when castration is clinically indicated. If this were carried out in all women, many women would be castrated unnecessarily.

The use of testosterone, followed by castration, is an important modality especially in the presence of osteoclastic bone metastases. It is indicated when the metastases are general and no longer can be adequately controlled with local irradiation. Patients may be carried in relative comfort for as long as six months to a year with a maintenance dose of 100 mg. of testosterone given intramuscularly after the initial build-up. The only indication we have used for administration of estrogenic hormones has been in women well past the menopause who have soft part metastases. The benefits of this procedure have been relatively few, although regression of en-cuirasse lesions has been observed on occasion.

The use of radioactive gold and radioactive chromic phosphate intrapleurally will reduce some pleural effusions due to metastases. These isotopes have been more effective where the effusions are the result of metastases from breast carcinoma than from other primary lesions. We prefer to use chromic phosphate rather than radioactive gold because of the simplicity of handling the material. Physicians need to learn more about these procedures so they can evaluate them properly and advise their patients who may benefit from them. Since many methods of therapy are available, the physician's problem is the selection of a specific method of therapy at the time when that procedure should be performed.

The patient who has responded well to other methods of hormone therapy is more likely to benefit from the ultimate procedure of adrenalectomy or hypophysectomy. It also is true that the use of these procedures should be in an orderly fashion. Although this may be the general rule, enough information about adrenalectomy and hypophysectomy is not available to preclude their use where one has not been successful with the other methods of hormone therapy. One of the most spectacular recoveries we have ever seen was following adrenalectomy and oophorectomy. This patient was active and doing well one year following this unusual recovery. We have seen only 3 patients following hypophysectomy, and we believe this procedure holds promise in a limited number of patients.

Regional anesthesia, drug therapy, and neurosurgical procedures such as chordotomy are important measures to be used in the over-all care of patients with incurable carcinoma of the breast. The use of regional anesthesia and neurosurgical procedures is limited to a very small group in whom there is specific indication for them. Drug therapy in terms of pain relief and feeling of well being should not be left to chance and should be controlled by a single physician. Whoever assumes the responsibility for the care of the patient should direct this medication. Enough analgesic should be used to relieve pain. The patient should be reassured concerning her fears of addiction and leave this responsibility to the physician. Drug therapy no less than irradiation therapy requires personal attention and reappraisal from time to time so that it may be adjusted to the needs of the individual.

Supportive therapy is extremely important, especially the therapy of anemia. With neoplasm as well as irradiation destroying the blood forming organs, failure of blood production may be the direct cause of death. Blood transfusions may be indicated more often than we realize. Supportive appliances to bones that may fracture, or may be ready to fracture and compromise the patient's life, may be helpful and indeed indicated. Specific recommendations for diet should not be left to the patient, but rather given by the physician with due indication.

Regardless how one may define terminal illness, the physician must employ all methods at his disposal to see that the patient passes through it with the least physical and mental discomfort possible.

The program with frequent consultation between surgeon, radiotherapist, pathologist, and internist provides the patient with the best possible care. In the patient with localized or regional disease, consultation between surgeon, radiotherapist, and pathologist, seeing the patient before definitive therapy, discussing the pros and cons of various criteria, deciding

upon the best approach, and then carrying that approach out to suit the needs of the patient, will afford the patient the best chance of long survival.

RECOMMENDED APPROACH

On the basis of the information presented, the following is submitted as one approach for the management of mammary carcinoma:

Stages 1 and 2 (limits defined by Haagensen and Stout's criteria of operability, negative chest and roentgen-ray bone survey).

1. Classical radical mastectomy should be followed by postoperative irradiation therapy with the McWhirter technique.

Stages 3 and 4:

1. Without evidence of distant metastases, simple mastectomy should be performed where this can be achieved without cutting across gross tumor (this type of approach is contraindicated in lesions extending through the tail of the breast region). This should be followed by the typical McWhirter type postoperative irradiation therapy.[6]
2. In the cases where simple mastectomy is not feasible, the McWhirter irradiation technique can be carried out with the intact breast, and in selective cases followed by radium implant to the primary lesion.
3. Patients with distant disease should look to one physician who will manage its course and who will handle them with compassionate understanding to the best of his ability. The various modalities available for the care of the patient with distant metastases should be used in a planned ascending fashion, with a definite intent in mind.
4. Consultation of surgeon, radiotherapist, and pathologist before definitive care utilizing proper work-up to rule out distant metastases affords the patient the best possibility for long term results.

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ABSTRACT OF DISCUSSION

DR. DAVID M. EARL, Houston.—When a cancer of the breast is not associated with gross axillary lymphadenopathy, the chances of subclinical metastasis being present are in the range of 25 per cent or more of the cases. If the axillary nodes are truly negative, the internal mammary nodes may be positive in 10 per cent of the cases.[1] Andreassen, Dahl-Iversen, and Sørensen[2] have demonstrated unsuspected supraclavicular lymph node involvement in 17 per cent of the cases where there was no gross axillary adenopathy. In the presence of gross axillary lymphadenopathy, this figure is 33 per cent and the internal mammary lymph node involvement increases to 48 per cent. In other words, with grossly positive axillary lymphadenopathy, the chances of having positive internal mammary lymph nodes is about 50 per cent. Wangensteen[3] has shown involvement of either the supraclavicular or the internal mammary nodes in 60 per cent of cases where the axillary nodes are involved by metastatic neoplasm from the breast.

Residual breast cancer in the skin flaps is a variable but significant factor.

Anterior chest wall involvement, by extension beneath the primary tumor, must be taken into consideration as a site for residual cancer following even the most expert surgery.

This analysis of regional lymphatic involvement, skin recurrences, and chest wall residuals following so-called localized disease would seem to justify the use of supplementary irradiation therapy since neither microscopic nor macroscopic cancer can be trusted.

DR. J. M. BROWN, Marlin.—The presentation of Drs. Miller and Mallams was excellent and exhibits enthusiasm required in treatment of cancer of the breast; however, review of work in a small series of cases at our clinic revealed excellent results in stage 1 cases no matter what the procedure. It seems that simple mastectomy, simple excision, or simple irradiation treatment would suffice for all stage 1 cases. In all cases above stage 1, results were relatively poor, and review of case histories indicates that a great many of these patients would have done as well if nothing had been done or if simple procedures such as simple mastectomy and palliative therapy had been followed. In this group 3 patients died within a year and a half after incisive biopsies, which suggests that surgical procedures that cut through tumors are indeed dangerous and probably change radically the life history of a tumor. Adopting the criterion of one of the foremost radiotherapists of today that "one cannot treat what he cannot see" might become important. In the stage 1 group, 1 patient lived 23 years following simple mastectomy, and the recurrent tumor became disabling after 22 years. In another, with simple excision, the disease re-

[1]*Handley, R. S., and Thackray, A. C.: Invasion of Internal Mammary Lymph Nodes in Carcinoma of Breast, Brit. M. J. (Jan. 9) 1954, pp. 61-63.*

[2]*Andreassen, M.; Dahl-Iversen, E.; and Sørensen, B.: Glandular Metastases in Carcinoma of Breast; Results of More Radical Operation, Lancet 1:176-178 (Jan. 23) 1954.*

[3]*Wangensteen, O. H.: Super-Radical Operation for Breast Cancer in Patient with Axillary Lymph-Node Involvement, Proc. Second Natl. Cancer Conf., Cincinnati, 1954, pp. 230-242.*

curred at the end of seven years. It was then treated by radical mastectomy and postoperative irradiation, and eight years later the tumor recurred in the axilla and was treated by palliative roentgen therapy. The patient lived six years after this with no evidence of disease.

Hormone therapy and certain radioactive materials have been established as procedures in advanced disease as an adjunct to palliative roentgen therapy, but the procedures of hypophysectomy, thoracic and supraclavicular dissection, adrenalectomy, oophorectomy, and the like have lent only a few weeks of rather miserable life and should be relegated to research.

Suffice it to say that careful, unbiased review of our past cases might lend to more gentle and judicious handling of the female breast with employment of simpler, less disabling procedures without loss and with possible gain in cure rate, longevity, and comfort of the patient.

Carcinoid Tumors Of the Rectum

Clinicopathologic Study Of 14 Cases

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Dr. W. R. Mathews, pathologist at the Confederate Memorial Medical Center, Shreveport, was a special speaker at the 1956 Annual Session of the Texas Medical Association in Galveston and presented this paper for the Section on Clinical Pathology, April 23.

In this study, 14 cases of rectal carcinoids are characterized as to symptoms, site and type of lesion, metastases, treatment, and results. The histology is not unlike that of ordinary appendiceal carcinoids in most instances. An example of carcinoid colliding with rectal carcinoma is recorded. Problems of treatment are discussed.

CARCINOID TUMORS of the rectum have been largely overlooked until recently. During the three decades following the report of the first case in 1912,[15] only 5 additional examples were added.[16] However, the literature of the last 10 years reflects a proportionate interest in carcinoids occurring in locations other than the appendix and small bowel. Well over 100 cases of rectal carcinoids are now on the record.[3,6,7,10,11,12,13,16] From these studies it has been indicated that certain histologic variations[6,12,16] are somewhat peculiar to lesions of this distribution and that the rate of clinical malignancy is low.

All investigators are now in agreement that carcinoid tumors are malignant[1,12,14] although characteristically slow in growth and metastasis. Even after the disease has spread to the lymph nodes or other parts, it may produce little or no effect on the patient for periods of months or years.[7,9,18] A little more than 10 per cent of rectal carcinoids have developed metastases,[10] a figure which exceeds that for similar growths of the appendix,[12] but is only about one-fourth as great as that for carcinoids elsewhere in the gastrointestinal tract.[14] The favorable position held in this regard by appendiceal and rectal carcinoids appears to rest mainly on circumstances leading to early surgical intervention. In the appendix, owing to its small lumen, such a growth is not long in causing obstructive appendicitis, and routine proctologic examination directs attention to rectal lesions often when they are in a favorable stage.

Although several important studies on carcinoid tumors of the rectum have been contributed, there still exist weak links in the chain of our knowledge of this disease. Despite the pyramiding of case reports within the past decade, it is almost certain that the incidence of the lesion is greater than presently indicated. The practice of local definitive treatment of small, submucosal nodules without biopsy and the occasional erroneous diagnosis of carcinoid as carcinoma have been contributing sources to the low rate of occurrence. Six of the 11 patients reported as having had abdominoperineal resections had had a preoperative diagnosis of carcinoma.[3] Long range follow-up studies on treated cases have been scarce, and as long as this situation prevails, the present program of treatment will remain somewhat in doubt.

There have been 14 cases of rectal carcinoid studied in the laboratory of the Confederate Memorial Hospital since 1946. Six of these (cases 11, 12, 13, 14, 15, and 16) have been summarized in a previous publication.[7] Seven cases were represented by surgical specimens referred from outside sources. No record of the lesion could be found in 9,317 autopsies performed in this hospital during the past 26 years. However, the cursory manner in which the lower rectum was often examined detracts from the value of this observation.

CASE REPORTS

CASE 1.—On January 26, 1946, Mrs. E. A. G., a 35 year old white woman, was found to have an asymptomatic submucosal nodule on the anterior wall of the rectum at a distance of 8 cm. above the anal margin. After biopsy, the

tumor was removed by local excision and was found to show yellow color and to measure .9 cm. in diameter. Microscopically, it showed the structure of the ordinary appendiceal carcinoid and, except for invasion of the mucosa, was confined to the submucous layer. The silver stain was not done. The patient has remained free from recurrence more than 10 years.

CASE 2.—G. C., a Negro woman 75 years of age, entered the hospital on November 13, 1948, with hypertensive heart disease. Routine examination disclosed a sessile nodule, estimated to measure 2 cm. in diameter, at a level 8 cm. above the anal margin. A biopsy revealed the growth to be a carcinoid with no significant departure from the classical structure observed in lesions of appendiceal and ileal distribution. Cords of tumor cells separated the fibers of the muscularis mucosae and ramified in the mucosa. The silver stain was negative. The patient rejected treatment of the rectal lesion and withdrew from the hospital after improvement of the cardiac status. She died of heart disease June 29, 1950, approximately 18 months after biopsy.

CASE 3.—A. R. C., a 47 year old white man, back home from Honduras, consulted a physician because of the recent development of diarrhea. Four months previously he had had bloody diarrhea associated with amebiasis. Examination disclosed a pea sized submucosal nodule on the left side of the rectal wall 10 cm. above the anal margin. A biopsy revealed the lesion to be carcinoid, and it was removed by local excision. The only histologic departure from the ordinary carcinoid was the presence of a few glands in the mucous aspect of the tumor. The silver stain was negative. Except for invasion of the mucosa, the lesion was confined to the submucous zone.

CASE 4.—A fragmented rectal tumor, measuring approximately .8 cm. in diameter, was removed from W. G. A., a white man, aged 37 years, on October 12, 1951. In the course of a routine medical examination, an asymptomatic submucosal nodule was found at a distance of 6 cm. above the anal margin. It was removed by local excision. Microscopically, the pattern of growth was mainly nests and columns of radially arranged columnar cells around small spaces and rarified centers. There was penetration of the muscularis mucosae and invasion of the mucosa. The silver stain was not done. Adequacy of removal of the tumor was indeterminate because of the fragmented state of the specimen. The patient has remained free from disease for approximately four years.

CASE 5.—M. M., a 40 year old white man, sought medical attention on January 7, 1952, because of a nonbloody diarrhea of six weeks' duration. He had been treated for amebic dysentery without relief. Proctologic examination revealed a match-head sized sessile nodule 6 cm. above the anal margin. It was removed by local excision and measured .5 cm. in diameter. Microscopic examination revealed glandlike formations, narrow columns of columnar cells which tended to interconnect, and solid nests of small polygonal cells containing uniform ovoid nuclei with fine chromatin stippling and no mitotic activity. Except for invasion of the mucosa, the process was confined to the submucous layer. There has been no recurrence for a little more than four years.

CASE 6.—J. M., a 50 year old white man, consulted his physician on October 20, 1954, because of diarrhea. Examination disclosed a sessile nodule which measured 1 cm. in diameter on the anterior wall of the rectum 8 cm. above the anal margin. It was removed by local excision. Except for the presence of glandlike formations, the histologic pattern was the classical one (fig. 1); the mucosa was invaded. Adequacy of removal could not be determined because of the fragmented state of the specimen. There was no evidence of disease when the patient was last examined on March 1, 1956.

CASE 7.—M. H., a 76 year old Negro woman, was admitted to the hospital on February 15, 1955, because of weakness and fainting due to hemorrhage from a duodenal ulcer of long standing. Routine proctologic examination revealed a sessile polyp measuring .8 cm. in diameter on the anterior wall, at a distance of 8.5 cm. above the anal margin. This was removed by local excision. The histologic features were, by and large, those observed in ordinary appendiceal carcinoids. Glandlike formations were present in the mucous aspect of the tumor. The silver stain was negative. Except for invasion of the mucosa, the lesion lay in the submucosal zone. There was no evidence of recurrence on March 1, 1956, the date of the last follow-up.

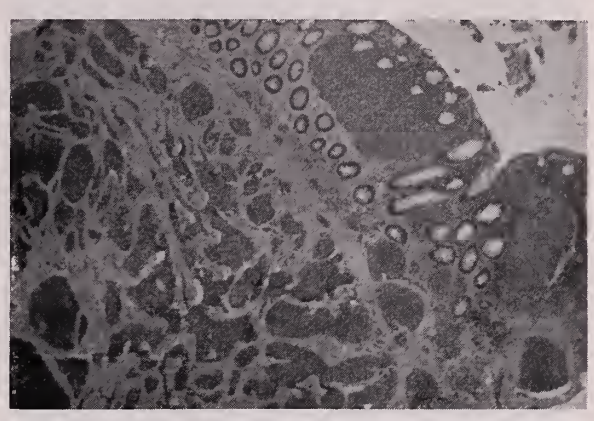

Fig. 1. Case 6. A photomicrograph showing the structure of ordinary carcinoid.

CASE 8.—Mrs. D. W. G., a white woman, 62 years old, developed recurrent episodes of cramping abdominal pain in July, 1955; a few months later she began to pass blood and mucus in the stools. She had had a right radical mastectomy in 1949 for carcinoma and had been treated for basal cell carcinoma of the face in 1953. Proctoscopic examination revealed a large, annular, stenosing, ulcerated lesion of the rectosigmoid. A biopsy from the lower margin of the tumor was diagnosed as carcinoid. An abdominoperineal resection and panhysterosalpingo-oophorectomy were done on January 27, 1956. The bowel segment measured 26 cm. and showed the lower margin of the tumor to lie 12 cm. above the anal margin. The tumor measured 6 cm. in the long axis of the bowel, was ulcerated and moderately stenotic, and was limited by prominent nodular margins (fig. 2 above). A napkin ring type of constriction was observed to encircle about one-half of the circumference of the serosal aspect. Several of the regional lymph nodes were involved by tumor. The corpus and cervix uteri and right adnexa showed nothing pertinent. The left ovary measured 11 cm. in its greatest dimension and was replaced by a fragmented, pinkish yellow tumor which surrounded an irregular, centrally located cavity. Microscopically, the tumor showed a variable structure. In sections from the lower margin, medium sized polygonal cells with indistinct borders grew diffusely or in parallel columns like palisades. The nuclei were variable in size, sometimes vesicular in appearance, and rarely showed mitotic figures. A less conspicuous change was the presence of sharply delineated ovoid nests of round or polygonal cells with small uniform nuclei, showing fine chromatin stippling. Similar areas, occurring in the submucosa and at deeper levels in the wall, occasion-

Fig. 2. Case 8. Above. A gross lesion showing carcinoid in the lower margin and adenocarcinoma elsewhere.

Below. Enlarged photomicrograph of a section from the lesion showing collision of carcinoid (A) with carcinoma (B).

ally showed small empty vesicle-like spaces. Individual cells in both structural patterns gave a positive reaction to the mucicarmine stain. And finally, there was much of the tumor, in fact most of it, which showed the structure of the conventional type of adenocarcinoma of the rectum. This was sharply demarcated from, though colliding with, the part showing the carcinoid-like structure (fig. 2 below). All of the regional nodes contained adenocarcinoma; 2 of them showed, in addition, nests and sheets of monotonously uniform small cells which appeared typical of carcinoid. The left ovary was totally occupied by adenocarcinoma.

DISCUSSION

The patients and their symptoms have been tabulated in table 1. The occurrence of the lesion was the same in both sexes. The average age was 52.3 years, with only 2 patients being less than 40 years. Half of the patients had symptoms that were probably or definitely referrable to the rectal disease. Diarrhea

TABLE 1.—*Fourteen Patients and Their Symptoms Indicating Carcinoid Tumors of the Rectum.*

	Patients Male Age (yr.)	Patients Female Age (yr.)	Symptoms	
White	37	35	Incidental finding	7
	40	55	Diarrhea	3
	47	75	Rectal bleeding	2
	50		Constipation	1
Negro	40	38	Low back pain	1
	49	52		
	65	72		
		78		

was present in 3 patients, rectal bleeding in 2, constipation in 1, and low back pain in 1. Symptoms suggestive of rectal disease were absent in the other 7 patients, their lesions being disclosed through routine rectal examination. Approximately two-thirds of the reported cases have been asymptomatic; when symptoms were present, they were not unlike those commonly observed in association with carcinoma of the rectum.

In table 2, an attempt has been made to indicate the location of the lesion in the rectum, the anatomic types, and the simultaneous occurrence of other pri-

TABLE 2.—*Location of Lesion, Types of Tumors, and Other Primary Neoplasms in 14 Cases of Carcinoid of the Rectum.*

Location in rectum	A8, A8, A8.5, A8.5, A10, L8, L10, P5, P9, R6, R6, R6, R8, R12*	
Types of tumors	Submucosal nodules in 8 cases, measuring from .5 to 1 cm.	
	Sessile nodule of unknown extent in 1 case, measuring 2 cm.	
	Sessile polyps in 2 cases, measuring .8 and 1.5 cm.	
	Annular stenosing lesion in 1 case.	
	Nodular infiltrating lesions in 2 cases, measuring 2 and 3 cm.	
Other primary neoplasms	Carcinoma of rectosigmoid	2
	Adenomatous polyps of rectum	2
	Melanoma of toe	1

*The figures represent centimeters above the anal margin, and the letters indicate the wall of the organ involved (A, anterior; L, left; P, posterior; R, right).

mary neoplasms. Two-thirds of the lesions occurred in the lower half of the rectum; and in those with indication, its occurrence on the anterior wall equaled its distribution in all other locations combined. The

majority of the tumors were freely movable submucosal nodules ranging from .5 to 1 cm. in diameter. In 2 cases, the lesions were larger nodular masses infiltrating the rectal wall. In the remaining patients, sessile polyps occurred in 2, an annular stenosing growth in 1, and a sessile nodule of unknown extent was present in 1 (case 2).

Neoplasms of the rectum, other than carcinoids, were present in 4 cases. Adenomatous polyps were present in 2 patients (cases 15 and 16)[7] and in 1 of these, there was also melanoma of the left great toe. Carcinoids were associated with carcinoma of the rectosigmoid in 2 cases, occurring as an independent lesion in 1 patient (case 13)[7] and apparently as a collision tumor in the other case. The latter lesion showed unique structure. The lower margin in its entire circumference showed histologic characteristics which were more like carcinoid than carcinoma. This merged with the central ulcerated portion which uniformly showed the structure of a deeply invasive adenocarcinoma of the conventional type. The part resembling carcinoid, however, was not altogether uniform in structure. Solid nests of monotonously regular cells with uniform nuclei, as observed in ordinary carcinoid, were intermixed with palisaded columns and diffusely arranged cells which were somewhat variable in size and nuclear characteristics. However, the composite picture was within the range of accepted histologic variation of carcinoid tumors of this distribution, and would probably stimulate no comment except that it formed a part of an ordinary adenocarcinoma. The possibility of independent carcinomas of different histologic types which have collided in the course of their development has been considered. Small cell carcinomas of the rectum have been mistaken structurally for carcinoids.[12, 17]

Malignant tumors of a different histologic type, in association with carcinoids of the gastrointestinal tract, have been recorded by several observers.[12] However, Duke's observation of carcinoids in 3 surgical specimens of the rectum containing carcinoma appears to be the only previous report of coexistent carcinoid and carcinoma of this organ.[4]

In table 3, the treatment, the metastases, and the follow-up studies are tabulated. Eight of the patients had their lesions removed by local excision and have been free from recurrence for periods ranging from 1 to 10 years. One patient (case 15)[7] rejected further treatment when it was discovered that his tumor had been incompletely removed by local excision; there has been no evidence of recurrence in four years. Local excision of the full thickness of the rectal wall was done for a tumor showing invasion of the inner part of the muscle (case 16);[7] the patient has remained free from disease for more than three years. Abdominoperineal resection was done in the case with the annular, stenosing lesion showing carcinoid and carcinoma. There were metastases to the nodes. The last patient, a 38 year old Negro woman with a deeply infiltrating growth (case 14),[7] had a segmental resection with a pull-through procedure. The regional nodes and veins (tumor thrombi) showed involvement. She remained asymptomatic for approximately 20 months and then developed weakness, loss of weight, and bone pain. Roentgenographic survey of the skeletal system disclosed many small areas of condensation in all of the bones, but especially in the pelvis (fig. 3). We have regarded the bone changes as probably due to metastatic carcinoid, but since the patient refused biopsy, histologic proof is lacking. She died 39 months after the operation.

TABLE 3.—*Summary of Treatment, Metastases, and Follow Up of 14 Cases of Carcinoid Tumors of Rectum.**

Treatment	Metastases	Follow-up
Local excision—8 cases.	None known.	10, 4, 4, 3½, 3, 1½, and 1 yr.
Incomplete local excision—1 case.	None known.	4 yr.
No treatment—1 case.	None known.	Died of heart disease 1½ yr. after biopsy.
Segmental resection with pull-through procedure—1 case.	Reg. nodes, veins, bones (?).	Died 39 months after operation.
Excision full thickness bowel wall—1 case.	None known.	3⅓ yr.
Abdominoperineal resection—1 case.	Reg. nodes.	2½ mo.

*Carcinoid was an incidental finding in a surgical specimen of the rectum containing carcinoma in 1 case.

Fig. 3. Case 14. A roentgenogram of the pelvis showing probable metastatic carcinoid.

In our experience, the structural characteristics of carcinoids of the rectum, by and large, have been comparable to those of the ordinary carcinoid. Rib-

bon-like festoons of columnar and prismatic cells were approached in only 2 of the cases (fig. 4). Stout found this peculiar pattern of growth in 4 of 6 cases studied.[16] Glands or glandlike formations were observed in about one-third of the cases. The silver stain was carried out in 9 cases with positive results in 3.

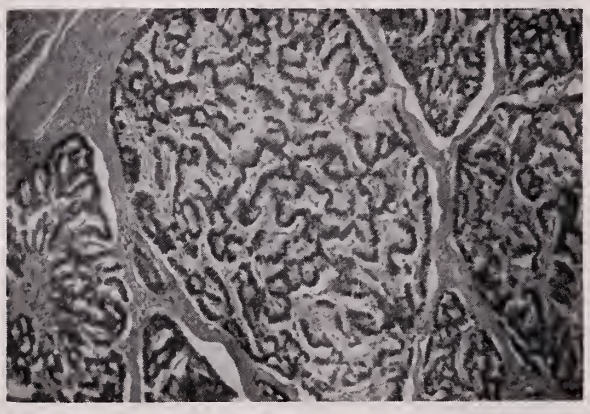

Fig. 4. Case 13. Carcinoid of the rectum showing ribbon-like festoons of cells.

As yet, the accumulated experience in treating carcinoids of the rectum is not enough to bridge all of the uncertainties in this field. On the whole, the indications of treatment are better understood and more sharply drawn in the advanced than in the less advanced stages. In lesions with extensions or metastases that are not resectable, simple excision of the primary growth, with as much of the spread as possible, is recommended. Such a procedure might prove to be of crucial importance in those cases in which the remaining metastatic deposits elected to grow slowly or remain stationary for many years. One of our patients with carcinoid of the small bowel survived 14 years after development of metastasis to the liver (case 12).[7] In lesions with well developed and easily demonstrable infiltration of the rectal wall, the treatment is the same as for carcinoma of this organ. Lesions with lesser degrees of infiltration, involving the inner portion of the musculature only, form a category in which treatment at the present time is empirical. Simple excision of the part of the segment bearing the tumor has been regarded as adequate treatment in such cases. However, recent reports of metastases to lymph nodes and other parts[5, 8, 19] from lesions of this order suggest the need for reexamination of the problems of treatment in tumors of this stage of advancement. Local excision of polypoid or solitary, movable, submucosal nodules is regarded as adequate treatment if the sections reveal the lesion to be limited to the submucosa and to be completely excised. Whether or not the assumption that metastases do not develop from rectal carcinoids confined to the submucosa is correct remains to be seen. Thus far, there have been no reports to the contrary. Obviously, it would be impossible in such cases to exclude metastasis to a deep node which might not become manifest for many years. I have belabored this point somewhat because we have observed metastasis to a lymph node from a gastric carcinoid which was confined to the submucosal layer. Figure 5 illustrates the entire carcinoid from the posterior wall of the stomach of a 16 year old Negro boy who died of a perforated peptic ulcer. Metastasis had developed in a solitary gastric lymph node. How often such an event occurs is altogether problematical. It is likely to be of rare occurrence, and it would be unsound to switch to a more radical form of treatment of this type of lesion on the basis of a single fortuitous observation.

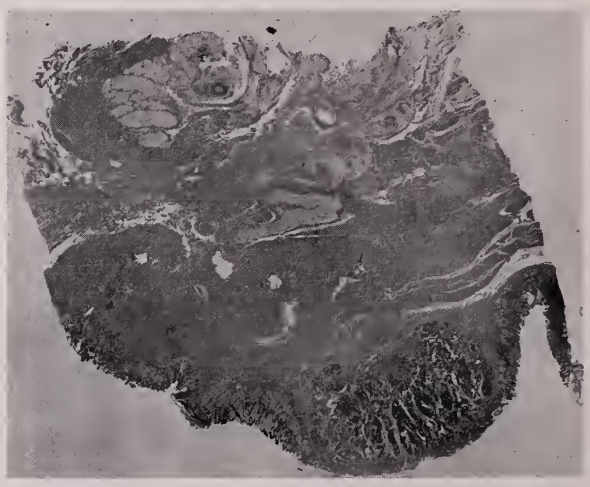

Fig. 5. Carcinoid of the stomach apparently limited to the submucosa, which metastasized to a gastric lymph node.

SUMMARY

More than half of 14 cases of rectal carcinoids studied were small, movable, submucosal nodules which were palpable on digital examination and amenable to local excision. Half of the patients were asymptomatic, and their lesions were disclosed through routine examination. Two patients had metastases, and 1 has died of the disease. An instance of carcinoid colliding with carcinoma of the rectum is recorded. In most instances the histology of the tumors was not unlike that seen in ordinary carcinoid of appendiceal origin. In connection with comments on the problems of treatment, an instance of metastasis from a gastric carcinoid apparently confined to the submucosa has been cited.

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Knowing Occupational Environment Helps

The importance of the physician becoming familiar with the occupational environment of his patients, particularly if his clientele comes largely from industrial workers, is emphasized in a report of the Council on Industrial Health of the American Medical Association printed in the December 8 issue of the *Journal of the American Medical Association* (p. 1387).

The report points out that the physician thus may be able to diagnose and treat disease affecting his patient more adequately, may help better to match the physical abilities of a prospective employee with job requirements, and may be more effective in helping to prevent occupational diseases and accidents. A personal survey of the industrial plants by the physician and an understanding of the commonly observed injurious materials, hazardous conditions, harmful operations, accident hazards, and sanitation pitfalls reviewed in the report will stand the physician in good stead in his practice and in his role as health educator.

A reference list directs the physician to more exhaustive studies and specific recommendations.

Treatment of Malignant Effusions

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Dallas, Texas

PROBLEMS in the symptomatic and supportive care of the man or woman with far advanced metastatic cancer are numerous and perplexing. Among the most distressing of these has been the debilitating loss of fluids into various body cavities which often attends metastatic deposits on the serous surfaces. The formation of ascites, pleural effusion, or less commonly, pericardial effusion, may occur so massively that embarrassment to adjacent organs multiplies the sufferings of that patient many fold. If

Dr. James A. Martin presented this paper for the Section on Radiology, Texas Medical Association Annual Session in Galveston, April 24, 1956.

Radioactive colloidal gold and chromic phosphate treatment of massive effusions accompanying metastatic neoplasm to serous surfaces increases the patient's comfort and controls the fluid formation to some degree. Case reports illustrate such therapy, which supplements roentgen ray and nitrogen mustard as a helpful modality. Radioactive material also has given encouraging results as postoperative prophylaxis.

the terminal event is not near, the anxiety and distress accompanying the many paracenteses required for the duration of life are in themselves an exhausting experience. For these reasons, there has been considerable enthusiasm in recent years for several methods designed to combat this problem, at least in part.

J. H. Müller of Switzerland[19] is credited with the first clinical application of radioactive colloidal gold given intraperitoneally in the treatment of the effusions of metastatic ovarian carcinoma. The logic of this procedure has been demonstrated in mice by Goldie and Hahn,[11, 12] who were able to inhibit the peritoneal implantation and growth of transplanted tumor cells by intraperitoneal instillation of radio-

active gold. A number of clinical investigators since have reported the clinical use of this material for effusions of various origins, and reports of substantial clinical benefit are presented in ranges up to 50 to 70 per cent.[1, 8, 17, 18, 26] There are also indications that this material may have real value in a prophylactic sense to avoid implantation of tumor cells inadvertently distributed in the peritoneal cavity at the time of surgery.[8, 26] Similar studies with similar clinical results have been conducted using radioactive phosphorus in the form of the colloid, chromic phosphate. This material has several advantages since it is a pure beta emitter with a longer half-life than gold, thus obviating the necessity of protection against a gamma component and allowing storage of the material for greater availability. An entirely different principle is involved in the direct intracavitary injections of rather large doses of nitrogen mustard as employed in other clinics, also with similar degrees of benefit.[4, 27] The obvious advantages of this material would be its low cost, ready availability, and complete avoidance of any radiation hazard (table 1).

TABLE 1.—*Comparison of Treatment Agents.*

Quality	Radioactive Gold	Chromic Phosphate	Nitrogen Mustard
Physiologically	Harmless	Harmless	Cytotoxic
Half-life	2.69 d.	14.3 d.	
Particle size	0.003-0.007μ	0.03-0.05μ	
Beta energy (max.)	0.98 MEV	1.72 MEV	
Beta range (water)	3.8 mm.	8.0 mm.	
Radiation hazard	Moderate	Little	None
Cost	Expensive	Less expensive	Cheap
Procurement	Difficult	May store	Available
Administration	Gamma protection	Beta protection	No protection

The purpose of this study is to present the results obtained in two clinics using radioactive materials prophylactically and for palliative purposes. Fifty-two injections of radioactive colloidal gold were given, 41 for palliative treatment of effusions secondary to metastatic neoplasm and 11 for prophylactic purposes. Sixteen administrations of radioactive phosphorus were given, 13 for the treatment of effusions and 3 for prophylactic purposes. The phosphorus is prepared in colloid form at the J. K. and Susie L. Wadley Research Institute and Blood Bank as has been outlined in a previous publication.[23] Briefly, the material is prepared by ball mill grinding of ignited chromic phosphate at 50 rpm for 72 to 96 hours. Kelcosol solution (0.5 per cent) is added as a surfactant, and the material is suspended in aqueous dextrose solution. The particle size as determined by electron microscopy ranges from 300 to 500 angstroms with occasional particles of 0.2 micron. The material is stable and there has been relatively little tendency for the particles to form large aggregates (fig. 1). The distribution in animals after intrapleural and intraperitoneal injections has been found similar to results in other laboratories employing other chromic phosphate preparations with an insignificant amount appearing in the reticuloendothelial system. This is probably due to the low dialyzable fraction of 1.0 to 1.3 per cent.

ADMINISTRATION AND DOSAGE

There are many methods of administering colloidal radioactive gold preparations of which we have employed two. A simple device suggested by H. B. Elkins[9, 14] employs a properly shielded B. & D. Cornwall syringe and attached valve mechanism allowing the operator simply to pump the material from a shielded reservoir into the patient through a paracentesis needle. Flushing the apparatus is accomplished by the same mechanism. Another method makes use of disposable plastic intravenous tubing and connectors arranged in such a manner that dilution and transfer of the radioactive material from a shielded reservoir is achieved by air pressure from a remotely connected syringe and three-way stopcock. This method contaminates a minimal amount of reusable apparatus and can be set up easily for multiple administrations, requiring only new sterile tubing and paracentesis needle for each succeeding patient. Preceding or immediately following this procedure, it has been found wise to give the patient a barbiturate or chlorpromazine to combat possible radiation nausea. Since radioactive phosphorus has only beta emission, protective requirements are minimal, and the administration of the material is thus much simplified over that of gold. In both instances, it has been our custom to enforce bed rest, at least for the initial few hours after administration, and to turn the patient 90 degrees each 15 minutes for two or three hours. This enhances mixing and dispersion of the injected material and increases the opportunity for it to come in contact with all surfaces. Obviously, it is necessary for each patient to be hospitalized for several days if these procedures are to be carried out properly.

There is no fixed figure which can be established as the proper one for dosage with any of these materials. With gold we have employed a range of dosage in the pleural cavity from 50 to 115 millicuries and in the abdominal cavity from 100 to 157 millicuries without determining where the optimum dosage lies. With chromic phosphate our dosage has ranged from 8 to 10 millicuries in the pleural cavity and 15 to 16 millicuries in the abdomen. In general these ranges parallel those used in other clinics.

Both materials create a small incidence of side effects which are usually minimal in view of what may

be accomplished. Nausea, with or without vomiting, is the most common symptom of gold therapy often related as occurring in 1 out of 2 patients treated. In our series, this occurred most often after the larger intraperitoneal doses, never lasted longer than one or two days, and was usually controlled with relative ease after proper medication. This reaction did not occur following chromic phosphate administration, presumably since whole body gamma radiation was not a factor. With both materials there were occasional episodes of low grade fever occurring for a day or two following administration and then subsiding spontaneously. It was not possible to collect complete data on peripheral blood changes, but several patients exhibited evidence of mild bone marrow depression in the week or two following hospital discharge. No patient exhibited evidence of severe marrow hypoplasia as has been reported elsewhere.[5] Perhaps the most distressing side effect encountered has been apparent local chemical irritation of serous surfaces occurring in a few instances immediately after injection with both substances. Pleuritic or abdominal pain in such cases has been severe enough to require narcotics but fortunately has subsided spontaneously each time with complete recovery in a matter of a day or two. We have not yet arrived at an explanation of this phenomenon and why it should occur in a few persons and not in the majority when the same basic material is employed each time. In 1 patient, severe local abdominal pain at the site of introduction occurred upon the administration of several cubic centimeters of dilute gold preventing completion of the procedure. The following week she was able to tolerate instillation of 150 millicuries in 500 cc. of saline solution without any discomfort whatsoever.

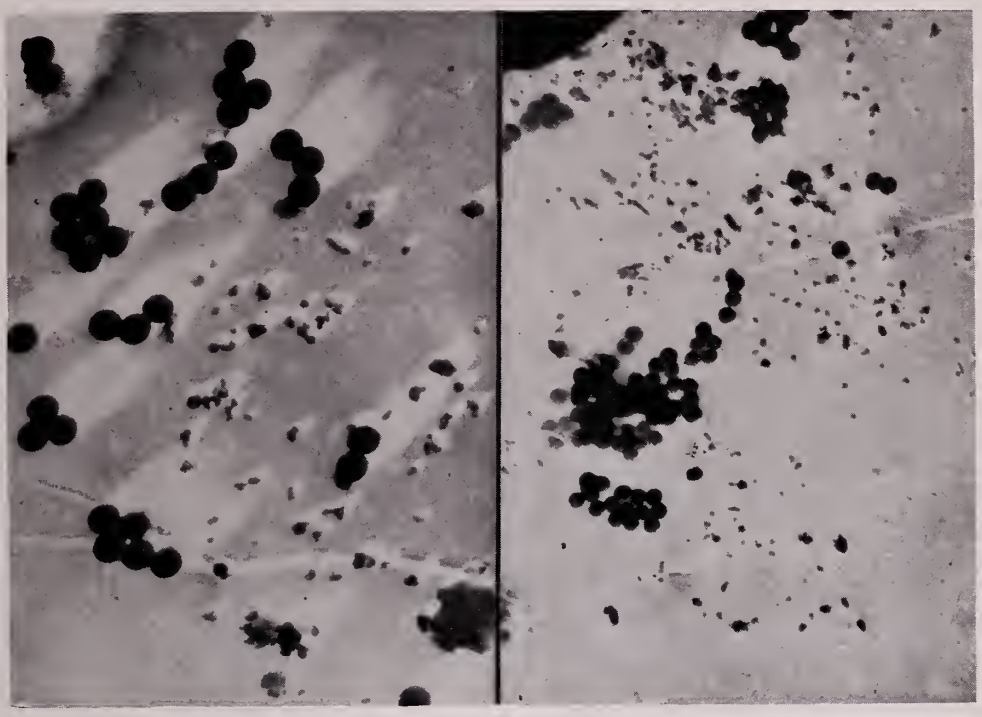

Fig. 1. Electron micrographs of colloidal chromic phosphate (P^{32}). Larger spherical particles are reference latex emulsion, each 0.26 micron in diameter. (From the J. K. and Susie L. Wadley Research Institute and Blood Bank, Dallas.)

RESULTS AND ANALYSIS

It has been difficult to classify and analyze the results of treatment in any logical pattern. In the final analysis our design has been simply to determine whether these patients have been helped or not, and the simplest approach has been to class as "satisfactory" those patients in whom fluid has been retarded or stopped. The term "unsatisfactory" has been applied to those who exhibited no obvious benefit. "Indeterminate" results indicate the patients who survived one month or less allowing insufficient time for adequate evaluation of the radiation response.

A satisfactory result was achieved in 29 instances out of 54 administrations of radioactive material given to 48 patients. An unsatisfactory response was seen in 15 administrations, and results were indeterminate in 10. Moderate side reactions including low grade fever and varying degrees of nausea occasionally accompanied by vomiting occurred in 12 instances. There was no apparent difference in the effectiveness of the two agents used, and there was no significant

variation in response relating to the type of tumor. In this small series, the poorest results generally were obtained in the metastatic breast lesions and in the group in which primary site and type of tumor were unknown. An explanation of the apparent poor response in these two groups may have been related to the advanced stage of the disease at the time the treatment was given.

It is interesting to note from further consideration (table 2) that generally the best results were obtained in cases of serous effusions, and most of the failures were in patients with sanguinous effusions. This observation is consistent with the findings of others.[6] Again, this is probably a reflection of the extensiveness of the disease rather than any relation to the character of the fluid. The site of administration, whether it be pleural, abdominal, or pericardial, seems to have little relation to determining outcome.

TABLE 2.—*Results of Palliative Use of Radioactive Materials for Malignant Effusions.*

Result	Treatments	Type Effusion		Location			Primary Lesion				
		Serous	Bloody	Pleur.	Abd.	Pericard.	Ov.	Breast	Lung	GI	Unknown
Satisfactory	29	19	10	16	13	0	14	4	6	3	2
Unsatisfactory	15	3	12	10	5	0	4	4	2	1	4
Indeterminate	10	6	4	6	3	1	2	4	2	1	1

A smaller number of patients has been treated prophylactically following surgical removal of the primary tumor, usually ovarian carcinoma. The majority of these cases were ones in which there was thought to be complete surgical extirpation, but contamination of the operative area with viable tumor cells remained a possibility. Eleven of these were cases of ovarian adenocarcinoma of whom 9 patients are alive at this time without evidence of recurrent carcinoma. Seven of these 9 have remained clinically well for periods ranging from two to three years; the other 2 for from four months to a year. Two definite failures in the group have developed recurrences in 6 months and 21 months after intraperitoneal therapy. Other lesions treated postoperatively were generally unfavorable ones, and all of these 3 patients have succumbed to their diseases within six months of treatment. These include abdominal tumors from an advanced carcinoma of the cervix, sarcoma in the small bowel mesentery, and an advanced endometrial carcinoma. In the latter patient, it is interesting to note that abdominal recurrence with ascites did not manifest itself until 22 months after treatment with radioactive gold.

CASE REPORTS

CASE 1.—S. G. S., a male dental technician, was first seen at the age of 57 years on February 2, 1952, complaining of dyspnea, nonproductive cough, weakness, and considerable fatigue. Examination revealed partial collapse of the right lung and right bloody pleural effusion which was found to contain malignant cells (fig. 2). A clinical diagnosis of bronchogenic carcinoma with pleural metastases was made. During a three week course of roentgen therapy followed by oral triethylenemelamine, two thoracenteses were required for the relief of respiratory distress. No further chest taps

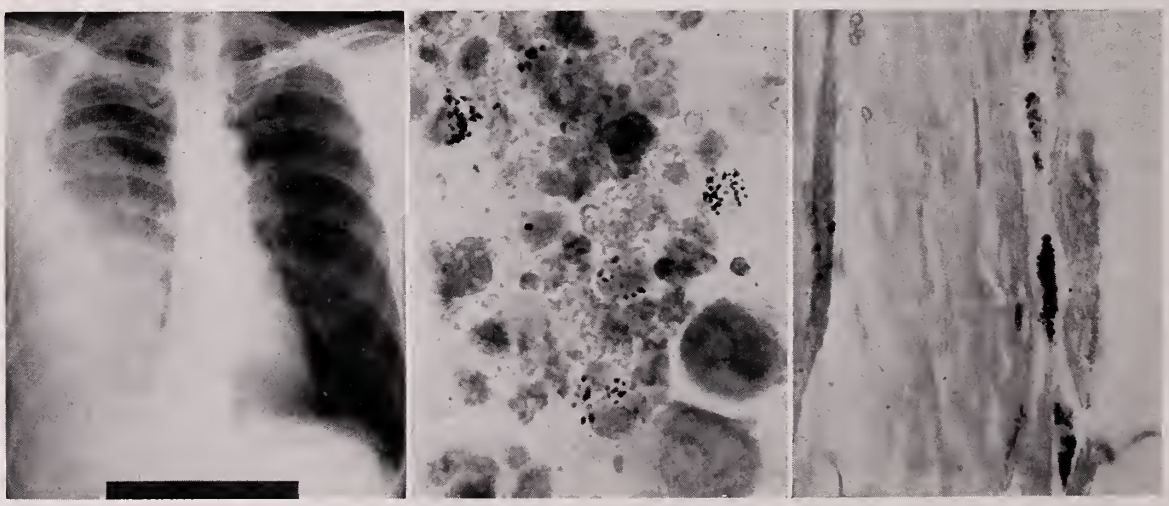

Fig. 2. Case 1. At left is shown a radiograph of the chest outlining a massive pleural effusion compressing the lower lobe of the right lung. A photomicrograph in the center reveals particles of colloid within the cytoplasm of macrophages in the fluid sediment following intrapleural gold therapy. A microscopic section through the pleura shown on the right was taken at autopsy and also discloses similar particles within macrophages on the pleural surface.

were required, and the patient improved generally over the next few months, returning to work. This improvement lasted about eight months after which he again began to suffer symptoms of reformation of right pleural effusion, again with bloody fluid containing malignant cells on microscopic examination. On May 26, 1953, 50 millicuries of radioactive gold was instilled into the right side of the chest. Because he continued to form fluid, a second instillation of 77 millicuries was given September 6. The following month nitrogen mustard was given intravenously (17.1 mg. in four days). No further thoracenteses were required although the patient generally deteriorated during this period and died rather abruptly November 22 in acute respiratory distress.

The outstanding findings at autopsy were total collapse of the right lung with pulmonary edema on the left. Approximately 1,500 cc. of brown colored turbid fluid was found loculated in the right lower pleural space. The pleura was thickened and smooth but without gross or microscopic evidence of metastases. The right lung itself contained no obvious tumor, but squamous cell carcinoma was found in mediastinal and retroperitoneal lymph nodes as well as in the left adrenal gland.

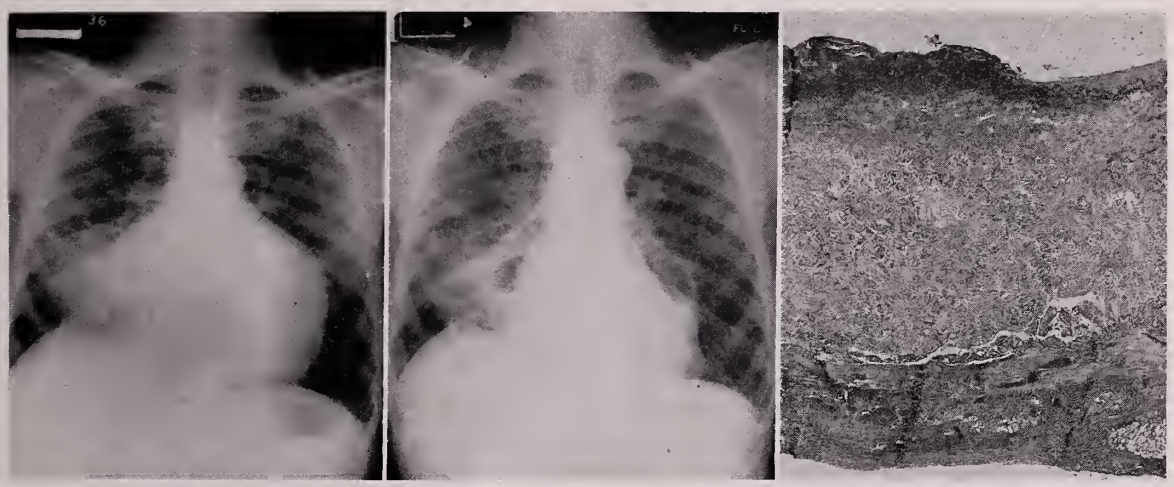

Fig. 3. Case 2. Marked enlargement of the cardiac shadow secondary to massive pericardial effusion is shown in the radiograph at the left. The relatively small cardiac size is shown in the center film following pericardial tap and air instillation. A photomicrograph on the right shows a section through the greatly thickened pericardium obtained at autopsy. The central zone is a dense layer of infiltrating tumor. At the upper margin on the internal surface is a narrow zone of fibrin deposit and necrotic debris apparently the result of surface radiation from the radioactive gold given 16 days previously.

One may appreciate that this man's greatest palliation came from the initial roentgen therapy and triethylenemelamine. It was possible later to control the recurrence of the effusion, but it then required more than one administration of gold. Possibly, gold used initially would have achieved palliation also. It is clear then that older standard methods of treatment are not depreciated by the appearance of these newer methods, and their proper place in the tumor clinic armamentarium must not be neglected.

In this case, it seems reasonable to assume from the many free tumor cells in the fluid that gross tumor nodules must have been present on the pleura at the outset of the recurrent fluid formation. Yet, at autopsy no gross or microscopic tumor was found, and in its place was thickened and fibrotic pleura, presumably the result of beta radiation from the radioactive material. Thus fibrosis with disappearance or submerging of tumor implants is a change which may accompany reduction in fluid formation.

CASE 2.—J. V. L., a 48 year old day laborer, was first seen in the emergency operating room September 9, 1953, following an injury to the chest. Routine roentgenograms made at the time demonstrated an infiltrative process in the right midlung field. Physical examination revealed right supraclavicular and cervical adenopathy which by history had been present approximately eight to nine weeks. The patient was asymptomatic except for a slight nonproductive "cigarette" cough present for a year or more. Following his admission, the clinical impression of bronchogenic carcinoma was substantiated by biopsy of the cervical scalene nodes. Deep roentgen therapy was administered to the chest, and the patient did well for several weeks. However, he was readmitted in November with complaints of severe dyspnea and hemoptysis. Fluoroscopic and radiographic examination established the presence of pericardial effusion with tamponade, and fluid obtained upon aspiration of the pericardial sac contained microscopic tumor cells (fig. 3). On December 1, 50 millicuries of radioactive colloidal gold was placed within the pericardium, and the patient had no further accumulation of fluid. Sixteen days later he developed signs of constrictive pericarditis, which became rapidly worse, and he died December 17. Postmortem examination revealed adenocarcinoma of the right upper lobe bronchus with regional lymphatic extension and marked invasion of the pericardium. The cause of death was thought to be constrictive pericarditis resulting in right heart failure. This appeared to be the result of combined pericardial invasion by tumor and radiation effect presumably secondary to the radioactive gold.

It is interesting that a localized radiation effect on the pericardium was sufficient to prevent the effusion and avoid tamponade. However, the same reaction

apparently further reduced pliability of the diseased pericardium, thus aggravating the constrictive process which caused death. Whether a smaller dose of radioactive material in the range of 10 to 15 millicuries might have controlled the fluid formation and allowed this patient a somewhat longer survival is purely speculative.

DISCUSSION

It is evident that there is at present no one best way to combat all malignant effusions. Each of several methods has its advantages and its drawbacks. Roentgen therapy has as its major disadvantage the fact that large volumes of tissues must be treated in order to cover an entire serous surface, and when lung tissue is included in that volume, the result can be an unpleasant pneumonitis followed by fibrosis. On the other hand, if there should be tumors of any size within these cavities, roentgen therapy is the most rational way to approach them. The radioactive colloidal materials have established themselves as useful tools provided they are used in the proper manner, a fact applying to all useful tools. Their shortcomings are relative inaccessibility, moderate radiation hazard, and expense. It should be remembered that patients suffering from malignant effusions are usually near the end of a long expensive illness and further economic burden to them is often a severe hardship. Some of these difficulties are apparently answered by the use of intracavitary nitrogen mustard, according to the experience of others, but this material cannot provide all the needed answers. It is likely that the proper care of these patients might well require access to several of these modalities thus allowing proper application in the proper place.

It will be necessary to define the indications for radioactive colloidal materials carefully and adhere to them if one is to avoid misinterpretation of their value. Although the exact mechanism of fluid formation in malignant disease remains unknown, it is obvious that none of these modalities will be of any value in combating the effusion of portal obstruction, hypoproteinemia, or the chylous effusions secondary to obstruction or trauma of the thoracic duct. With the limited range of beta particles in tissue, it should be equally evident that large tumors cannot be controlled by such surface radiation. A patient with osseous metastases and bone marrow embarrassment stands a chance of further embarrassment after use of radioactive materials, and such a hazard may not be a justified risk. It follows then that rather careful physical examination with laboratory confirmation of neoplastic etiology must precede treatment in all cases. It matters little what machine or device is employed for administration as long as reasonable protection requirements are observed. Of greater importance is care in the site of instillation. Interstitial injection of radioactive materials invites slough and consequent suffering without helping the patient in his original complaint. If fluid is present in multiple loculations without intercommunication, inadvertent instillation of a large dose into a small compartment is likely, with the result that local damage may ensue and other loculations remain untreated. Injection through or into an area of infection invites serious complications and should be carefully avoided.[20] Finally, there is little to be gained by employing such elaborate methods in the severely debilitated patient whose terminal episode is near and where paracentesis alone is sufficient to provide comfort.

It appears that the brightest future for radioactive colloidal materials may be in the prophylactic sense rather than the palliative one. Elkins[10,14] has pointed out that even in cases in which there was thought to be total removal of the tumor without contamination of the operative area, sterile washings have contained viable tumor cells. This observation combined with the work of Goldie and Hahn[11, 12] in animals lends support to the thesis that prophylactic intra-abdominal gold or chromic phosphate therapy is a rational procedure. Even in the small group of ovarian carcinomas treated postoperatively in this series one seems justified in saying that there has been evidence of some benefit. The early recurrence rate in this group is low, and 1 of those patients who developed recurrences did so after an extended period of asymptomatic comfort. Further observation will determine how many of the others may yet develop recurrences and whether the actual cure rate can be improved. At the moment, it is sufficient to say that the method shows promise and is well worth studying further.

SUMMARY

Massive effusions accompanying metastatic neoplasm to serous surfaces is a debilitating problem further complicating a hopeless disease. A measure of increased comfort and control of fluid formation can be obtained by proper selection and use of several modalities. Results of treatment in our clinics with radioactive colloidal gold and chromic phosphate are presented and analyzed. Case reports illustrate some of the interesting observations of the study. Experience obtained from use of these materials prophylactically in a small group of postoperative patients is encouraging.

We are indebted to Dr. Ralph S. Clayton, who directed the treatment of some of the patients included in this study and helped develop some of the techniques of administration and control.

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ABSTRACT OF DISCUSSION

DR. CLAUDE WILLIAMS, Fort Worth: The results my colleagues and I obtain in the use of radioactive gold (Au^{198}) for malignant serous effusions have been essentially, but not quite, equal to those quoted by Drs. Martin and Connor. We have had no experience in the use of colloidal solutions of radioactive phosphorus (P^{32}). We have used Au^{198} prophylactically on two occasions only. One of these patients is alive and well after 18 months and the other after 4 months. Both were cases of ovarian carcinoma.

Before instilling the Au^{198} we try to drain the particular cavity as dry as possible and use around 400 cc. of saline solution to dilute the gold. Rarely can the fluid be completely evacuated and generally there must be 500 cc. or more residual. We believe, as of course does everyone else, that one should make reasonably certain that the fluid is not loculated to the extent that contact of the major portion of the serous surface is precluded. Where the abdomen is concerned, this is difficult short of a pneumoperitoneum; however, the quantity of fluid removed as compared to the estimated quantity within the abdomen and palpation for residual loculations is a fairly good index and certainly of aid. In the chest we find that films taken before and after previous aspirations usually will determine if significant loculation is present. As a rule some air has been introduced and this is also of help. Small loculations are disregarded provided the gold injection is in the major cavity. Establishing that the lung is probably capable of reexpansion is important. In one of our patients following gold therapy fluid rapidly recurred. This was considered to represent a failure and may well have been. A few weeks later, however, the chest was aspirated and the fluid replaced by an equal quantity of air. A film then revealed the lung to be about the size of a normal kidney and to be coated by approximately ½ inch of thickened pleura. Obviously the fluid would recur regardless of any effect by the gold.

Our dosage is also arbitrary and essentially the same as that of the essayists. In general it is 150 millicuries to the abdomen and 90 millicuries to the chest.

We routinely start the patient on Thorazine prior to or at the time of administering the gold. With this routine practically all the patients in whom nausea and vomiting has been a problem have had this difficulty prior to the Au^{198} therapy. Pain of consequence at the time of instillation of the gold has occurred in only 1 patient. She was one of the 2 treated prophylactically and naturally had a dry abdomen. The pain occurred in the region of the right hemidiaphragm, radiating into the shoulder, and was rather severe. It was readily controlled by Demerol and did not recur.

Our patients are asked to change position every 30 minutes until bedtime and are instructed to assume positions that will tend to cause the fluid to gravitate toward the diaphragm or apex of the lung. Also some air is introduced because we think it allows for better mixing.

To our knowledge we have not had a case of serious bone marrow depression out of 64 instillations in 51 patients, and 1 patient received 5 instillations amounting to a total of 510 millicuries over a 12 months period. A complete blood count prior to the last treatment was within normal limits although on the low side.

The administration of Au^{198} in the abdomen or chest without unnecessary exposure, spills, and undue apprehension that it is being injected into soft tissue proved to be more difficult than we anticipated. After trying several methods we settled on one that is not original but more a combination of several others. Since it requires no special equipment, the equipment is not bulky or heavy, and the

method has given consistently satisfactory results, I would like to describe it in conclusion.

A 4 foot piece of polyethylene tubing is obtained. If the chest is to be tapped, a 13 gauge needle is used as the tubing can readily be inserted through this size needle. A small paracentesis trocar is used for the abdomen. After the fluid has been aspirated, one end of the tubing is inserted through the particular paracentesis instrument and the instrument is then withdrawn about the tubing. If the abdomen is being treated, a purse string suture is taken about the wound and immediately tied. Suturing is not necessary for the chest. Into the other end of the tubing an 18 gauge needle is inserted. This needle is sharpened at both ends, and the opposite end is grasped by a forceps to avoid exposure and forced through the rubber cap of the Au^{198} container. The container of gold is at no time removed from the lead protector. A closed 500 cc. intravenous set-up of normal saline solution is assembled, and the needle from this is also inserted into the rubber cap of the Au^{198}. With a 50 cc. syringe having an attached three-way stopcock and needle—the needle being forced through the rubber cap of the saline bottle—air is forced into the saline bottle and a pressure system established. By this method the gold and about 400 cc. of saline solution can be forced through the polyethylene tubing in a relatively short time. The only piece of contaminated equipment necessary to reuse is the 18 gauge needle sharpened at both ends.

Lymphosarcoma

A Study of Five Year Survivals With X-Ray Therapy

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THIS INVESTIGATION was undertaken to determine the five year plus survival rates of the various categories of lymphosarcoma, using only roentgen-ray therapy as the definitive treatment along with whatever supportive measures were indicated. A comparison between pathologic grading and approximate clinical staging is attempted for the purpose of prognostication.

Only those patients who received all of their roentgen therapy at the Scott and White Clinic were studied so that consistency of treatment would be maintained. Each case was pathologically proven and restudied and classified by the pathologist (C. P.). Only those cases with adequate follow-up were used, and the cause of death in most instances was taken from death certificates; autopsy reports when available were used. The material covered the cases diagnosed from 1936 through 1947.

For the sake of simplicity these lymphoid neoplasms have been put in a single group, using the term lymphosarcoma to include them all. Simple terms such as lymphocytic, lymphoblastic, and reticulum cell are added as adjectives to define the predominant cell types in any given lesion. The neoplasms are graded by the Broder's I to IV method. In general the follicular form of the so-called Brill-Symmers type constitutes most of our grade I tumors. Most of the lymphocytic type comes within the scope of grade II tumors; grades III and IV are lymphoblastic, reticulum, or stem cell forms and are less common in occurrence. Each node is graded on its own appearance, according to the predominant cell type. Serial biopsy studies were not feasible. Mycosis fungoides was not included in this review. Follow-up data have been compiled by standard procedures in accredited tumor clinic methods.

Dr. Dean Nichols formerly was associated with his co-authors at Scott and White Clinic, where he was a resident in radiology, Dr. Phillips was a pathologist, and Dr. Sommer was a radiologist. This paper was presented for the Section on Radiology at the 1956 Annual Session of the Texas Medical Association in Galveston, April 24.

The importance of grading cases of lymphosarcoma is evident in the fact that definite trends may be noted by comparing the various types of lymphoblastoma, namely, the lower the grade, the higher the survival rate, and the more the mixture of types in any one case, the lower the survival rate. Hodgkin's disease gives a reverse trend, with the higher survival rate in the higher grade. Normal life expectancy and that of patients with lymphoblastoma become the same at six years' survival.

General Electric 200 kilovolt Maximar machines were used for the roentgen-ray therapy with the following factors: kilovoltage peak 200; milliampere 18; focal skin distance of 50 cm.; added filtration 1 mm. of copper plus 1 mm. of aluminum (half value layer of 1.68 mm. of copper). The field site and size varied according to the clinical indication. In general a course of approximately 600 r (in air) was given to the superficial nodal areas and approximately 1,140 r (in air) to deeply lying nodal areas—thus tending to equalize the tumor dose. The tumor dose was not calculated as it was found to be too variable. The superficial nodal areas were treated in two successive days and the deeper at a rate of approximately 240 r (in air) per day and according to patient tolerance.

Patients were rechecked at three month intervals, and further roentgen therapy was given as indicated.

The types of lymphosarcoma discussed are lymphocytic, 31 cases; lymphoblastic, 16 cases; lymphoblastic plus lymphocytic, 12 cases; lymphoblastic plus lymphocytic plus follicular, 1 case; reticulum or stem cell, 4 cases; and follicular, 7 cases. These six types are grouped under the heading of lymphoblastoma for the convenience of discussion in this paper and constitute 71 cases. The other two types are Hodgkin's disease, 17 cases, and chronic lymphatic leukemia, 13 cases, making a total of 101 cases reported. For the sake of brevity, basic data and charts will be omitted from this paper.

GRADING

For the convenience of this discussion and for comparative purposes, sites of involvement on admission (as determined by the number of roentgen-ray fields used in the first treatment series) will be considered to correspond roughly to stagings; hence, 1 site on admission is equivalent to stage 1; 2 sites are equivalent to stage 2, and 3 or more sites are equivalent to stage 3.

Lymphocytic Type (31 Cases).—Grade I (9.7 per cent of the type) had 3 cases: 1 woman, age 20 years, died of Hodgkin's disease (proved by autopsy) within the first year of diagnosis; and 2 men, ages 32 and 20 years, were alive at 13 and 8 years after treatment, respectively. All 3 cases were stage 3 on admission of the patient. Grade II (87 per cent of the type) had 8 out of 27 patients surviving five or more years. Of these, 1 man was still alive at 15 years and 2 women at 11 years. The 15 year case was stage 2 at diagnosis, and the 11 year cases were stage 3. Grade III (3.2 per cent of the type) had 1 patient, stage 1, who died in the second year after diagnosis. Grade IV had no cases.

TABLE 1.—*Lymphocytic Type: Summary of Survivals According to Grade.*

Grade	Survived 5 Yr. (%)	Survived 10 Yr. (%)	Alive at Yr.
I	67	33	8, 13
II	29.6	14.8	11, 11, 15
III	0	0	
IV	—	—	

Lymphoblastic Type (16 Cases).—Grade I had no cases. Grade II (6.3 per cent of the type) had 1 case, a woman, age 50 years, who was alive at seven years and was a stage 3. Grade III (62.5 per cent of the type) had 1 case, a man, age 75 years, stage 3, who was alive at 10 years; and 1 case, a man, age 40 years, also stage 3, who was alive at eight years. Grade IV (31.2 per cent of the type) had 1 case, a man, age 67 years, stage 1, who was alive at six years. This patient had his disease about three days before diagnosis and received one series of roentgen therapy of 2,770 r (in air) to the left cervical area.

TABLE 2.—*Lymphoblastic Type: Summary of Survivals According to Grade.*

Grade	Survived 5 Yr. (%)	Survived 10 Yr. (%)	Alive at Yr.
I	—	—	
II	100	0	7
III	20	10	8, 10
IV	20	0	6

Lymphoblastic Plus Lymphocytic Type (12 Cases).—Grade I had no cases. Grade II (58.4 per cent of the type) had 2 cases, both women, with ages 48 and 64 years, who were alive at seven and nine years respectively and were both stage 3. Grade III (41.6 per cent of the type) had no five year survivals. Grade IV had no cases.

TABLE 3.—*Lymphoblastic Plus Lymphocytic Type: Summary of Survivals According to Grade.*

Grade	Survived 5 Yr. (%)	Survived 10 Yr. (%)	Alive at Yr.
I	—	—	
II	28.8	0	7, 9
III	0	0	
IV	—	—	

Lymphoblastic Plus Lymphocytic Plus Follicular Type (1 Case).—Grades I, III, and IV had no cases. Grade II (100 per cent of type) had 1 patient who died in six months.

Reticulum or Stem Cell Type (4 Cases).—Grade I had no cases. Grade II (25 per cent of the type) had 1 patient who died in three months. Grade III (75 per cent of the type) had 2 patients who died in three months and 1 who was killed in one year (car wreck). Grade IV had no cases.

Follicular Type (7 Cases).—Grade I (86 per cent of type) had 2 cases, both women, ages 60 and 41 years, still alive at eight and seven years respectively. The 60 year old, a stage 1, had her disease about 10 days before diagnosis and received only one course of roentgen therapy of 576 r (in air) to the left cervical

TABLE 4.—*Follicular Type: Summary of Survivals According to Grade.*

Grade	Survived 5 Yr. (%)	Survived 10 Yr. (%)	Alive at Yr.
I	33	0	7, 8
II	0	0	
III	—	—	
IV	—	—	

area. The other case was a stage 3. Grade II (14 per cent of type) had 1 patient who died in three months. Grades III and IV had no cases.

By comparing the various types of lymphoblastoma, it is seen that two definite trends stand out, namely, the lower the grade, the higher the survival rate, and the more the mixture of types in any one case, the lower the survival rate.

TABLE 5.—*Lymphoblastoma: Summation of Survivals According to Grade.*

Grade	Cases	Survived 5 Yr. (%)	Cases	Survived 10 Yr. (%)
I	10	50	4	25
II	37	29.8	27	14.8
III	16	12.5	9	11.1
IV	8	12.5	3	0
Totals	71	26.8	43	14

Hodgkin's Disease (17 Cases).—Grade I (5.9 per cent of type) had 1 patient who died in two years. Grade II (65 per cent of type) had 1 patient, a man, age 22 years, with stage 1, but who received additional fields in six months and was alive at 11 years. One patient, an 18 year old girl, with stage 3, was alive at seven years. One patient, a man, age 55 years, with stage 2, died of a coronary occlusion at seven years without evidence of Hodgkin's disease (autopsy report). Another, a woman, age 33 years, with stage 3, died in seven years. And still another, a 23 year old woman, with stage 2, died in five years. Grade III (29 per cent of type) had 1 case, a man, age 21 years, with stage 3, who lived 15 years and died of malignant hypertension with his Hodgkin's disease under control. One case, a woman, age 47 years, with stage 3, lived six years. One case, a man, age 35 years, with stage 1, who had new fields added in six months, was alive at seven years. Grade IV had no cases.

TABLE 6.—*Hodgkin's Disease: Summary of Survivals According to Grade.*

Grade	Survived 5 Yr. (%)	Survived 10 Yr. (%)	Alive at Yr.
I	0	0	
II	45.5	12.5	7, 11
III	60.0	33.3	7
IV	—	—	

Hodgkin's disease behaves differently from lymphoblastoma in that the trend shown by grading is the reverse, that is, the higher the grade, the higher the survival rate.

Chronic Lymphatic Leukemia (13 Cases).—This type was not graded.

Typing is important as there is variation between the types in regard to survival. Figure 1 demonstrates this. It shows also that the lymphocytic type has the best prognosis and that the more the combination of types in a case, the poorer the prognosis. This figure shows that the five year survivals in percentages for

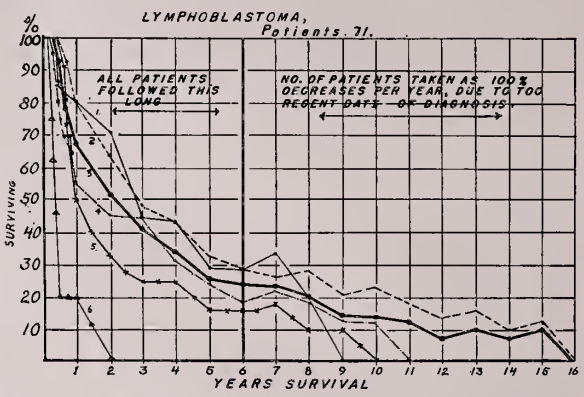

Fig. 1. The importance of typing lymphoblastoma patients is illustrated in the graph. Curve 1, the thin solid line, shows the follicular type; curve 2, dashed line, lymphocytic type; curve 3, heavy solid line, average survival for "lymphoblastoma"; curve 4, dash-dot line, lymphoblastic type; curve 5, barbed wire line, lymphoblastic plus lymphocytic type; and curve 6, solid line with the triangle, reticulum or stem cell type.

the various types are follicular, 28.6 per cent; lymphocytic, 32.2 per cent; lymphoblastic, 25 per cent; lymphoblastic plus lymphocytic, 16 per cent; reticulum or stem cell, nil; and the average for the group, 25.5 per cent. The percentage of survivals for 10 years are lymphocytic, 22 per cent; lymphoblastic, 12 per cent; and for the group, 14 per cent.

Figure 2 shows that Hodgkin's disease has a five year survival rate of 47 per cent; lymphoblastoma,

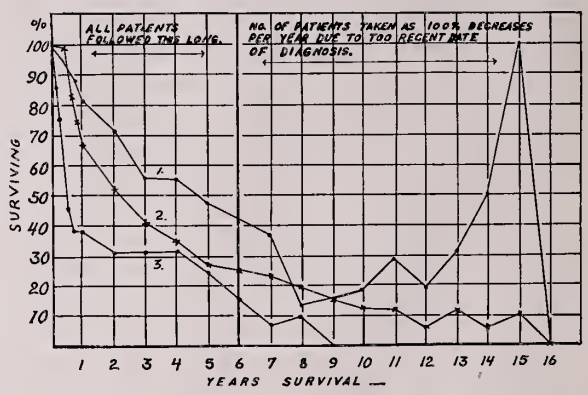

Fig. 2. The graph illustrates the survival rate from lymphosarcoma, Hodgkin's disease type (17 patients) on curve 1; from lymphoblastoma (71 patients) on curve 2; and from chronic lymphatic leukemia (13 patients) on curve 3.

25.5 per cent; and chronic lymphatic leukemia, 23 per cent; and the 10 year survival rate in the same order is 18 per cent, 14 per cent, and nil.

Figure 3 compares the survival of the lymphoblastoma group with that of normal life expectancy at the age of 50 years. The average age of the lymphoblastoma group was 49.5 years. Only this group was

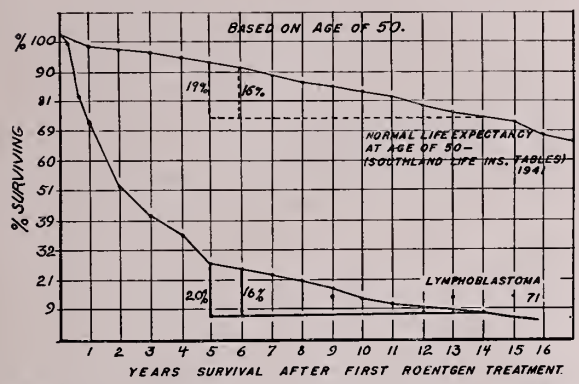

Fig. 3. A comparison of lymphoblastoma (71 patients) and normal life expectancy is shown in the graph. The slope of both curves becomes the same (16 per cent) at six years.

compared as it represents 71 cases; the other types have too few cases to indicate a trend—and that is all that is indicated here. For the normal life expectancy curve (constructed after the method of Joseph Berkson[1] the slope after five years is 19 per cent, whereas that for the lymphoblastoma group is 20 per cent. But at six years the slope of both curves becomes the same—16 per cent. This means that if a patient with a diagnosis of lymphoblastoma—and this statement is modified by the variations within the lymphoblastoma group as shown in figure 1—survives for six years, he can look forward to a normal life expectancy, especially if his age at diagnosis approximates 50 years.

COMPARATIVE COMMENTS

The comparisons in table 7 are not strictly justified as all the selective criteria for various reports are not exactly the same. There is also much room for variation in judging the pathology between the institutions. Only the more recent reports of some of the larger treatment centers are briefly reviewed.

Table 7 shows that in lymphoblastoma, the method of roentgen therapy used in our series compares favorably with those institutions having the highest gross survival rates. The Columbia-Presbyterian[7] report of 1950, with its added criterion of "symptom free," shows that many patients surviving five years will survive to 10 years, which is in agreement with the life expectancy curve (fig. 3) herein reported.

Table 8 also shows that in Hodgkin's disease the method of roentgen therapy used in this series compares favorably with the higher gross survival rates recorded for the five year survivals; however, it is

TABLE 7.—*Lymphoblastoma Gross Survival Rates.*

Institution	No. in Series	Survived 5 Yr. (%)		No. in Series	Survived 10 Yr. (%)
Columbia-Presbyterian[8]					
1947	96	22.6		12	12.8
1950[7]	242	20.6	← Symptom free →	172	20.9
University of Chicago[2]					
1948	43	9		43	2.3
University of Minnesota[4]					
1951	44	18.2		13	8*
Scott and White Clinic					
1956	71	25.5		43	14

*Figure excludes follicular type.

TABLE 8.—*Hodgkin's Disease Survivals.*

Institution	No. in Series	Survived 5 Yr. (%)		No. in Series	Survived 10 Yr. (%)
University of Chicago[2]					
1948	91	21			5.5
Columbia-Presbyterian[7]					
1950	133	11.3	← Symptom free →	118	9.3
Toronto General Hospital[6]					
1950	113	51		113	32
University of Minnesota[5]					
1954	208	25		167	11
Walter Reed General Hospital[3]					
1955	216	37		216	6
Scott and White Clinic					
1956	17	47		11	18

*Excludes follicular type.

less than the 10 year survival rate as reported by the Toronto General Hospital,[6] theirs being 32 per cent, which is by far the highest recorded. Again, the Columbia-Presbyterian[7] series has the symptom free requirement and shows a five year survival rate of 11.3 per cent and a 10 year rate of 9.3 per cent, indicating that patients surviving five years and being symptom free have an excellent chance of surviving 10 years as far as their Hodgkin's disease is concerned.

TABLE 9.—*Chronic Lymphatic Leukemia Survivals.*

Institution	No. in Series	Survived 5 Yr. (%)	No. in Series	Survived 10 Yr. (%)
University of Chicago[2] 1948	35	23	no data	
Scott and White Clinic 1956	13	23	6	0

Table 9 reveals that there is a 23 per cent five year survival rate in chronic lymphatic leukemia and nil for 10 years.

Tables 10 and 11 are a breakdown of the survivals according to sites on admission (Columbia-Presbyterian and Scott and White Clinic) or clinical stage (the others). These two methods of criteria for comparative purposes are roughly correlated, although they are not truly equivalent.

TABLE 10.—*Lymphoblastoma: Survival According to Sites on Admission.*

Sites on Admission	Columbia-Presbyterian[7] (Symptom Free) 1950	Scott and White Clinic 1956
	5 Year Survivals	
1	20 of 37 = 54%	3 of 9 = 33.3%
2	18 of 70 = 25.7%	3 of 14 = 21.4%
3	12 of 135 = 9%	9 of 48 = 18.8%
	10 Year Survivals	
1	12 of 26 = 46.1%	0 of 3 = 0%
2	15 of 35 = 42.8%	2 of 13 = 15.4%
3	9 of 111 = 8.1%	4 of 27 = 14.8%

Study of the results in tables 10 and 11 clearly shows that the lower the number in clinical staging, the higher the survival rate for all forms of lymphosarcoma. This is to be expected as the more generalized a disease is at onset of treatment, the shorter is the expected survival time.

There is rather consistent agreement in results that radical, that is, intensive, roentgen therapy gives higher survival rates in stage 1 than palliative routine. The same trend holds true for radical versus palliative therapy in stage 2. The results of the essentially palliative method of treatment used in this study compares favorably for stage 3, but this may not be strictly true because of the variations in selective criteria.

Comparing the Toronto General Hospital[6] and University of Minnesota[5] results in Hodgkin's disease, table 11, the survival rates are seen to be very similar, with the edge in favor of the University of Minnesota. The staging is similar in both of these series. A study of table 12 shows that both institutions give intensive roentgen therapy with a tumor dose of 2,000 r in 2 weeks for stage 1 and in 3 weeks for stage 2. Both institutions give palliative type of therapy for stage 3. The Toronto General Hospital gives only prophylactic therapy to adjacent uninvolved areas. Their hospital's stage 1 survivals are only 3 per cent better for five years and 2 per cent better for 10 years than the University of Minnesota's results. However, the latter institution shows significantly better results in stage 2, but again, this may reflect selective criteria. More data should be accumulated before accepting prophylactic therapy to adjacent areas as a routine.

The clinical staging used is that of Peters of the Toronto General Hospital[6] and is as follows (the original article gives further refinements incorporating symptomatology):

Stage 1: Involvement of a single lymph node region or a single lesion elsewhere in the body.

Stage 2: Involvement of two or more proximal node regions of either the upper or lower trunk.

Stage 3: Involvement of two or more lymph node regions of both upper and lower trunk.

TABLE 11.—*Hodgkin's Disease: Survival According to Sites on Admission.*

Stage or Site on Admission	Columbia-Presbyterian[7] (Symptom Free) 1950	Toronto General Hospital[6] 1950	University of Minnesota[5] 1954	Walter Reed General Hospital[3] 1955	Scott and White Clinic 1956
		5 Year Survivals			
1	26.6%	88%	85%	50%	Insufficient number of cases
2	9%	72%	90%	43%	
3	6.2%	9%	10%	32%	
	(133 cases)	(113 cases)	(208 cases)	(216 cases)	(17 cases)
Gross	11.3%	51%	25%	37%	47%
		10 Year Survivals			
1	26.9%	79%	77%	12%	
2	5%	21%	35%	9%	
3	4%	0%	2%	4%	
	(118 cases)	(113 cases)	(167 cases)	(216 cases)	(11 cases)
Gross	9.3%	32%	11%	6%	18%

Comparing clinical staging survival rates between institutions is far more accurate than comparing the gross survival rate, as the number of cases per stage per institution can differ tremendously and thus vary the weighting of the final gross survival rate (emphasized in table 11).

sarcoma. Hodgkin's disease has the best prognosis. The prognosis becomes progressively poorer in the following order: lymphocytic type; follicular type; chronic lymphatic leukemia type; lymphoblastic type; lymphoblastic plus lymphocytic type; reticulum or stem cell type; and lymphoblastic plus lymphocytic plus follicular type (fig. 1). The more the mixture of types in a patient, the poorer is the prognosis.

TABLE 12.—*Roentgen Therapy Factors.*

Institution	KVP	Filtration	Hvl mm. Cu	Ma.	FSD cm.	Aim
Columbia-Presbyterian[7] 1950		Not mentioned				Stage 1—T.D. of 3,000-5,000 r in 6 wk. 2—T.D. of 2,000-3,000 r. 3—T.D. of 1,000-1,500 r also to recurrences, rate of about 200 r/day (in air).
University of Chicago[2] 1948	200	1 mm. Cu 1 mm. Al	1.5			T.D. 2,000-4,000 r in 10-30 days (non-prophylactic).
University of Minnesota 1951[4] 1954[5]	220 220	0.5-1 mm. Cu 0.5 mm. Cu & 1 mm. Al	1.35-1.8 1.35	15	60-70 60	T.D. approx. 2,000 r in 14 days (stage 1); approx. 2,000 r in 21 days (stage 2); palliative to stage 3.
Toronto General Hospital[6] 1950	400	0.6 mm. Sn	4.5	5	100	T.D. 1,800-5,000 r depending on stage and resistance to irradiation.
	200	0.2 mm. Sn	1.2	5	50	T.D. 400-800 r to adjacent uninvolved regions, depending on age and patient tolerance.
Walter Reed General Hospital[8] 1955		Not mentioned				T.D. of 1,500 r in 1 wk. to 2,500 r in 3 wk. and up to 4,000 r in more resistant cases. Supervoltage helpful in deep-seated lesions.
Scott and White Clinic 1956	200	1 mm. Cu & 1 mm. Al	1.68	18	50	600 r (in air) total/port in 2 days to superficial nodal areas. 1,140 r (in air) total/port at 240 r per day to deep lesions according to patient tolerance.

SUMMARY AND CONCLUSIONS

We have presented 101 cases of lymphosarcoma, excluding mycosis fungoides. All cases had pathologic proof which was rechecked. Roentgen therapy of 200 kilovoltage peak range and half value layer of 1.68 mm. of copper was the definitive treatment given. Results are compared briefly with several other institutions.

Grading of the various types is useful, as the lower the grade the higher the survival rates for both the 5 and 10 year surveys in the various categories except for Hodgkin's disease, in which this trend is reversed (tables 5 and 6).

Clinical staging is more important than pathologic grading, as it reflects more accurately the survival trends in the effectiveness of therapy. It is more accurate to compare the survival rates of the various stages between institutions than to compare the gross survival rates (table 11). The lower the clinical stage, the better is the prognosis in all types of lymphosarcoma.

Typing is useful as regards prognosis in lympho-

The older age group tolerates its disease better in the lymphoblastic, follicular, and chronic lymphatic leukemia types. The younger age group tolerates Hodgkin's disease better than the older.

If a patient is going to die of his disease, he is apt to do so soon and usually within three years of diagnosis.

If no additional fields are required within six months of the original treatment, the prognosis improves for the lymphocytic, lymphoblastic, and follicular types but is of little significance in the other categories.

In general, if a patient survives five years and needs no roentgen treatments for the last year, his prognosis improves.

If a patient, of approximately 50 years, with lymphoblastoma survives six years after initiation of roentgen therapy, he may look forward to a normal life expectancy.

The best treatment program from this study appears to be for stage 1—a tumor dose of 2,000 r in 14 days; for stage 2—a tumor dose of 2,000 r in 21 days; and for stage 3—a tumor dose of 570 r in two days to superficial nodes, and a tumor dose of 1,100

r in 10 days, according to patient tolerance, to deep lesions. Stage 3 routine is repeated as is clinically indicated.

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ABSTRACT OF DISCUSSION

DR. ROBERT N. COOLEY, Galveston: The results which have been presented, with the possible exception of those relating to lymphatic leukemia, compare favorably with those obtained from other large centers, where much thought has been given to the management of these disorders. This is particularly so when we consider long term and five year survivals. In the lymphosarcoma group consisting of 71 patients treated, 17 were alive at five years and 10 of these were stage 3 cases at the time treatment began. Of the total number of stage 3 cases both of Hodgkin's disease and lymphosarcoma more than 18 per cent survived five years or longer. These results are much better than any that I have heard about. On the other hand the results in the stage 1 and stage 2 cases are quite acceptable but comparatively not so good. This minor discrepancy brings up another question. Although treatment courses were frequently repeated and as many as 15 courses were given to some patients, the highest dose given to any one field during any one treatment course did not exceed 1,520 r as measured in air. Usually it was somewhat lower. Although the arrangement of fields is not known, it is likely that the tumor dose for any one of these sites would not have exceeded this figure and in most instances it would have been lower. Measured by present day standards and practice this is a conservative dosage. It is considerably lower than that usually given in the earlier stages of these diseases. Consequently should we reappraise and readjust our thinking about dosage, or is it possible that the conservative dosages are more suitable for the stage 3 cases but not optimum for the earlier stage 1 and stage 2 cases in which we might hope for prolonged palliation? In this connection I should like to present a single case which serves to illustrate to some degree my basic philosophy concerning the treatment of lymphomas.

The case is of a young patient in whom a mediastinal mass was found on a routine chest film. The patient would not submit to thoracotomy, and a diagnostic dosage of roentgen rays was given. Following the administration of 1,200 r in approximately two weeks there was a rapid regression in the mediastinal mass. Because of this regression it was thought that this was a lymphoma and further treatment was instituted. The mediastinal mass was given a tumor dose of approximately 2,750 r in a period of four weeks. This dosage was given through two opposing 22.5 by 15 cm. fields. The upper end of the fields reached to the level of the clavicle and apparently encompassed the entire mediastinal mass and adjacent areas. About two weeks after the completion of treatment, the mediastinal mass had almost completely disappeared. The patient by this time was aware that he probably had a malignant tumor and became something of a psychiatric problem. Finally he was persuaded to undergo an operation. At operation the mediastinal mass was found. The surprising finding was that the upper portion of the mass extended well into the lower cervical region and considerably beyond the upper portion of the clavicle. It was obvious that there was a part of this mass that was not included in the field of radiation. The section of the tumor taken from the radiated area showed an area of necrosis and most of the cells were shrunken. The pathologist believed that there was no viable tumor tissue left; however, a cellular tumor which was thought to be Hodgkin's disease was present. This cellular portion of the tumor was obviously beyond the field of radiation and therefore relatively undamaged. This might be said to be a geographic miss, but I believe that this occurs frequently in the lymphoma group because of the wide extension of these tumors. However, the most that can be hoped for from radiation therapy is to destroy the tumor locally. At least that is what I would attempt to do when I take one of these patients for treatment. Whether or not it can be done with less than 2,750 r in four weeks I do not know.

Dr. Nichols and his associates have brought out that grading of lymphomas may be correlated with survival times, and he has applied these observations on a rather large scale. This is the first extensive attempt at such a correlation that I know of. It should be mentioned, however, that the primary location of the disease is of considerable importance in this connection. Lymphosarcoma of the intestinal tract often gives a relatively good prognosis, whereas patients with retroperitoneal involvement do poorly.

In the evaluation of the effects of treatment of leukemia, or for that matter any of the lymphomas, the results can be presented as five year survivals, or perhaps a more significant yardstick is the average duration of life following treatment. Actually the most useful evaluation would be an estimation of the duration of useful life. The most important objective is to return the patient to a comfortable existence and to a condition where he will be an economic asset. This is the most crucial measure of our treatment efforts.

Some 30 years ago Minot made a study of the duration of life in patients with chronic myelogenous leukemia not treated with roentgen rays. In general they were treated only by symptomatic supportive therapy. The average duration was slightly over three years. In a comparative group of patients treated with roentgen ray the duration of life was about three and a half years. However, Minot drew attention to the fact that those patients treated by roentgen ray were much more comfortable and much more productive than those who were not treated. Herein lies our real contribution to these patients. In a recent series of cases of lymphatic leukemia reported by Lawerence and his associates, the average duration of life was four and one-tenth years, and this is considered by present day standards to be a very good result. It now appears that we are actually able to prolong the lives of patients with leukemia. Again I wish to emphasize that it is the duration of useful life, however, that matters.

Role of Supervoltage Radiation in Cancer Therapy

VINCENT P. COLLINS, M. D.

Houston, Texas

ALL WHO ARE ENGAGED in the practice of medicine will have occasion from time to time to tell a patient that, following an examination or biopsy, a diagnosis of cancer must be made. The cancer may be early and localized so that one may predict with some assurance that cure can result from conventional surgery or radiation. Some diagnoses carry an unfavorable prognosis by standard treatment methods, and additional measures or technical refinements are constantly sought to improve the patient's chances. Sometimes, it is evident that conventional forms of treatment have little chance of success, are simply not applicable, or have already failed.

Dr. Vincent P. Collins, who is from the Department of Radiology, Baylor University College of Medicine, presented this paper for the Section on Radiology, Texas Medical Association Annual Session, Galveston, April 24, 1956.

Supervoltage radiation seems to be an inevitable trend. It has a cosmetic advantage over lower voltage therapy with reduced radiation sickness, but the chance for cure of cancer is still limited by the accessibility and radiosensitivity of affected areas. It permits a bolder approach to certain lesions and may prolong useful and comfortable life.

Under these varying circumstances, questions concerning the role of supervoltage are apt to be asked. What are the advantages of supervoltage radiation? What are the limitations? What are the indications? The questions may be asked by the patient, by his personal physician, by the radiologist in practice, or by a hospital board of directors. Any of these may seek opinion from larger centers where such equipment is in use or from an institution where the need for such extension of radiation facilities has not been felt. The background and interest of those who seek and offer opinion may vary widely, and some divergence of views is only to be expected.

The term supervoltage is open to some objection because the prefix "super" is vaguely relative with a connotation that is not entirely appropriate to medical terminology. Megavoltage (millions of volts) is a more acceptable word paralleling the term kilovoltage (thousands of volts), which is in common use. Supervoltage, or megavoltage, applies to radiotherapy units which generate roentgen rays with an energy of 1,000,000 volts or more, and includes the cobalt-60 teletherapy unit which emits gamma radiation with maximum energy of 1,330,000 electron volts. In this country there are now four supervoltage x-ray generators commercially available, and several designs for units which utilize radioactive cobalt sources of high intensity.

ADVANTAGES

The advantages of supervoltage radiation lie in the physical characteristics of high energy radiation (table 1).

TABLE 1.—*Advantages of Supervoltage Radiation.*

Physical	Clinical
Maximum ionization is displaced below surface	Skin tolerance is increased
Greater penetration	Tumor dose is greater for a given skin dose
More uniform absorption	Diminished hazard of bone necrosis
Low integral dose in proportion to tumor dose	Patients tolerate radiation better. Less radiation sickness

There are several features which explain the displacement of maximum dose below the skin surface at the entrance portal. Ionization that occurs in any unit volume of tissue is due to primary radiation traveling in the direction of the roentgen-ray beam and to scattered secondary radiation entering the area from any direction as a result of interaction in adjacent tissue (fig. 1). At the skin surface the radiation effect will be due to the primary radiation and to secondary radiation scattered in a lateral or backward direction. Below the surface, the effect of radiation is increased by an additional component of secondary radiation which is scattered in a forward direction as well as laterally and backward (fig. 2).

One effect of the quality of radiation is on the range of scatter. With low energy radiation, scatter into a given area must come from the immediate vicinity. For high energy radiation, scatter into a given area can come from greater distances. Maximum effect will be reached near the surface for low

energy radiation; maximum effect will be reached deeper in the tissue for high energy radiation (fig. 3). Another effect of the quality of radiation is on the direction of scatter. High energy radiation tends

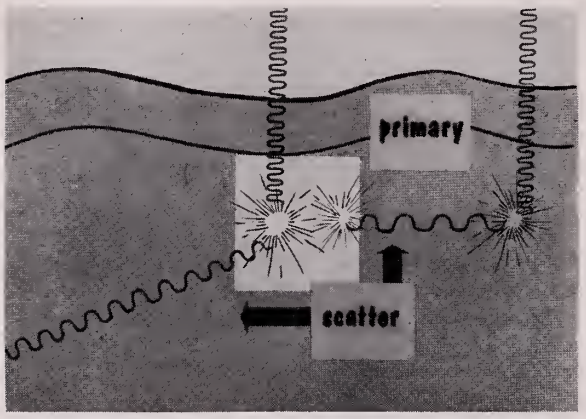

Fig. 1. Primary and secondary or scatter radiation.

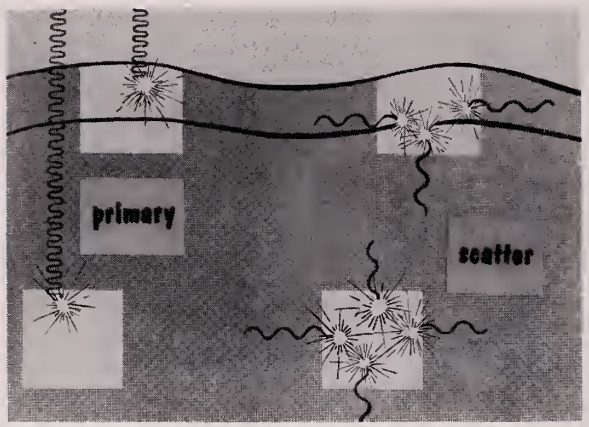

Fig. 2. Scatter radiation at a depth is increased by a forward component which cannot be present at the surface.

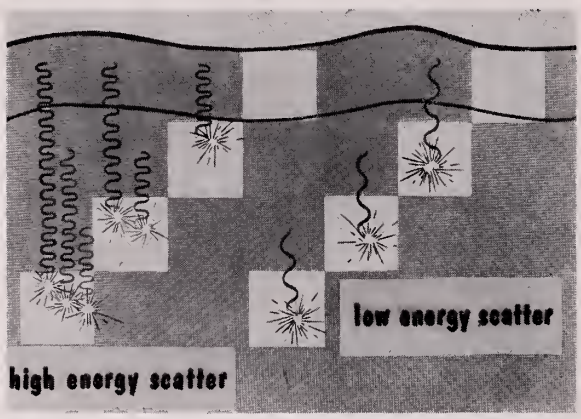

Fig. 3. High energy radiation increases the range of scatter so that maximum is reached deep in tissue.

to produce scatter that is dominantly in a forward direction so that there will be few interactions near the surface. Scatter from all directions occurs with

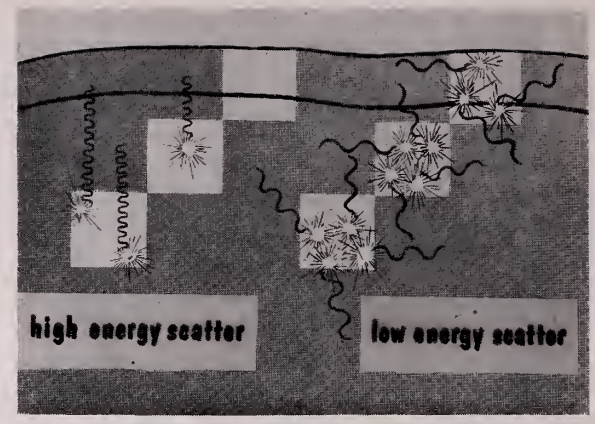

Fig. 4. The scatter of high energy radiation is predominantly in a forward direction, which also tends to increase the effect below the surface.

soft radiation, and more interactions can occur near the surface (fig. 4).

The effect of quality of radiation on depth dose is well demonstrated by a comparison of the "half value layer" in tissue. This term describes the thickness of tissue which diminishes the intensity of the radiation to one-half (fig. 5). Shallow and superficial for 100 kilovolt radiation, it is thicker for 250 kilovolt radiation, begins to sink below the surface at 2,000 kilovolts, and is deeply immersed with betatron radiation at 22,000 kilovolts.

It is desirable to spare the epithelial surface by avoiding erythema and moist desquamation, but deeper tissues may show late fibrosis as a high dose effect. It is not necessarily advantageous to displace the maximum effect ever deeper in the body since there are more vulnerable sites than subcutanous tissue. With the betatron, the maximum skin reaction may be a moist desquamation at the site of exit when the site of entrance shows little or no effect. This has no obvious advantage over a moist desquamation at the point of entrance, which is the common problem with intensive conventional roentgen radiation.

The more uniform absorption of high energy radiation is well demonstrated in a comparison of radiographs made with a conventional technique and at 2,000,000 volts (fig. 6). Bone is seen in an ordinary

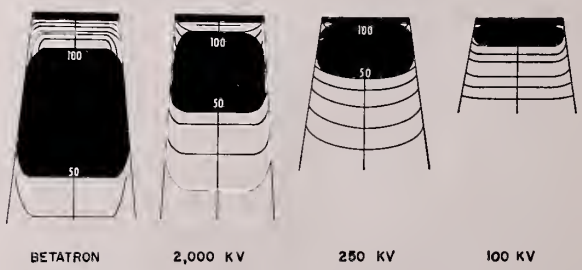

Fig. 5. Comparison of site and volume of maximum effect for different qualities of radiation.

radiograph because it absorbs roentgen ray and casts a shadow on the exposed film. In the 2,000,000 volt radiograph, bone can be seen only vaguely since it absorbs hardly more of the high energy roentgen ray than does soft tissue, producing no contrast and no image.

Fig. 6. In a conventional radiograph (left), the bony thorax is easily identified; in a radiograph made with 2,000,000 volt roentgen rays (right), bone can be seen only vaguely because it does not absorb more roentgen ray than soft tissues.

Integral dose or volume dose is an expression of the amount of radiation that the body absorbs in the course of treatment of a given lesion. For high energy radiation the greater penetration and the dominantly forward scatter mean that a desired tumor dose is achieved with less absorption in intervening tissues. Since there is little side scatter (fig. 7), the radiation is largely confined to the primary beam so that the volume of tissue being irradiated and the amount of radiation absorbed is kept to a minimum. That patients treated with supervoltage radiation are less subject to radiation sickness is believed to be related to less total energy absorbed during a course of therapy.

LIMITATIONS

The limitations of supervoltage radiotherapy are imposed by the nature of cancer. There are two principal reasons why treatment fails to cure:

1. The commonest cause of failure is the spread of disease beyond the treated area. Supervoltage radiation, conventional radiation, and surgery are equally ineffective if they cannot be applied to include all the sites of cancer. There is a tendency to overcome a language barrier by repeating a word more loudly. Raising the voice or raising the voltage will not overcome the problem if the factor lacking is understanding.

2. If the extent of the cancer is limited and known, there is still the problem of radiosensitivity. There is no evidence that any cancer is more sensitive to supervoltage radiation than to conventional radiation if all the other factors of dose are similar. Any greater response is due entirely to the amount of radiation that can be delivered by supervoltage radiation. The maximum benefit from conventional radiation is achieved in some instances at a high price of morbidity and complication.

Supervoltage facilities permit development of treatment policies in two directions. We may attempt to equal the best of present results and extend them to greater numbers of eligible patients while eliminating or diminishing the complications for treatment; or we may deliver higher doses in quest of a cancerocidal effect while inviting the same complications that mark the limits of tolerance to conventional radiation methods.

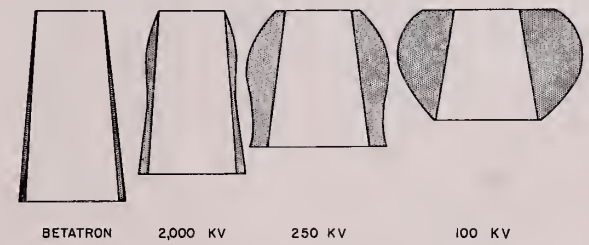

Fig. 7. Diagrammatic representation of the effect of quality of radiation on scatter from the primary beam into the adjacent tissue.

The choice between these policies is a matter of judgment. But supervoltage radiation is susceptible to discreditation if its availability is considered a mandate to deliver astronomical doses to cure cancer at any cost.

We recognize a group of cancers that we classify as early or curable because conventional methods of surgery and radiation have been generally successful. For these lesions, the advantages of supervoltage radiation may be applicable but not essential, and no great improvement could be expected. There is another group of patients with advanced disease who are not eligible for conventional therapeutic methods or who are discovered to be uncured following unsuccessful primary treatment. These are the patients whose need justifies the extension of cancer facilities such as supervoltage. These are the patients who will test the usefulness of supervoltage. In this unfavorable group there will be a disheartening similarity in the results of all forms of locally applied treatment as long as the criterion of success is cure. In a broad group of diseases, successful treatment is the management of the disease to maintain the patient in comfort and in economic and social usefulness. Much of cancer treatment is termed palliation, an accurate enough term which, however, has come to have a connotation of futility. No such sense of hopelessness or frustration besets the patient or the cardiologist in the management of coronary heart disease, which is, in fact, palliation in the strictest sense. For the patient we must recognize that progress in cancer therapy will be of the nature of improved management of patients with advanced disease. Whether or not this means an actual increase in survival time may be difficult to determine, but it will mean rendering the patient asymptomatic and returning him to a useful, social, and economic position with minimal disability due either to the disease itself or to morbidity associated with the treatment of the disease. Criteria for the effectiveness of therapy in this field must take these factors into account.

INDICATIONS

The indications for supervoltage therapy are dictated by the advantages and limitations that have been outlined, weighted by the general concept of cancer that the therapist has developed.

When both conventional and supervoltage facilities are available and adequate to all demands, the supervoltage facilities tend to be favored for reasons of convenience and comfort, even if the required tumor dose can be delivered by conventional methods. It has been found that 250 kilovolt therapy machines come to be limited in their use to those circumstances, such as superficial lesions, pain relief, and inflammatory conditions, for which the desired effect can be obtained by doses that are well within tolerance. The skin-sparing effect and the improved tolerance of supervoltage radiation are desirable for both the therapist and the patient.

There is an economic aspect in the diminished time and effort involved in the actual treatment schedule of the supervoltage unit. The complexity of treatment planning is reduced when patients may be treated with one, two, or three treatment fields as opposed to conventional techniques requiring four to six fields. The simplicity of treatment plans and the diminished number of fields reduce the time involved in setting up the patient for treatment. Except for the units of very low radiation output, the over-all treatment time is thereby reduced and the number of patients that can be treated is increased.

In certain instances such as advanced cancer involving bladder or lung, it may be questioned whether any treatment is indicated. Experience with conventional techniques and 250 kilovolt radiation leads to some doubt that the morbidity associated with intensive treatment is justified when the likelihood of appreciable benefit is remote. There may be strong indication for use of supervoltage radiation in such circumstances, as suggested in the following cases.

CASE 1.—A 63 year old relative of a urologist was discovered to have an inoperable cancer of the bladder. The fungating lesion involved more than half the bladder surface as seen at cystoscopy. The histologic diagnosis was transitional cell carcinoma, grade 3 with invasion of muscularis. Treatment was carried out with a 2,000,000 volt machine, using four fields 6 by 5 cm. A tumor dose of 5,000 r was delivered in four weeks. A severe cystitis was produced which began to subside two weeks after treatment. The patient was symptom free at six weeks after treatment and has remained so for five years. In this interval, a primary cancer of rectum has been discovered and an abdominoperineal resection carried out.

Although examination showed an advanced cancer of bladder, and the histology gave no indication that this lesion differed in any way from other fatal carcinomas, it is evident that the lesion was still localized to the treatment area. For such a localized lesion, it is possible that an equally satisfactory result might have been obtained by cystectomy, by radium or radon, or even by conventional radiation had these methods been offered. The important point is that they were not believed applicable because the chance of success was too remote and the risk of these forms of therapy too great. That the patient survived can be attributed to the technical advantages of supervoltage that rendered it feasible to undertake treatment with the therapist knowing that although chance of success was low, no formidable risk attended the course of therapy.

CASE 2.—A 57 year old man had an inoperable carcinoma of the upper lobe of the right lung involving the

right hilus. The outstanding feature in this instance was the hypertrophic pulmonary osteoarthropathy involving hands and wrists, feet and ankles. This distinctive form of arthritis, which is associated with several types of chronic pulmonary disease, made it difficult for the patient to walk or even use his hands to eat.

He was treated with 2,000,000 volt radiation using opposing 8 by 12 cm. fields to include the right hilus and the superior mediastinum. He received a dose of 5,000 r in four weeks in July, 1951.

The arthropathy was completely relieved two weeks after treatment was completed. The radiographic evidence of periosteal reaction disappeared after two months, and there was no recurrence of signs or symptoms. In September, 1952, the patient developed paralysis of the right vocal cord, and in November of the left vocal cord. It was evident that there was recurrent disease in the right hilus and in the mediastinum. He was treated again with 2,000,000 volt roentgen therapy, receiving 5,000 r in four weeks to the involved region. There was temporary improvement, but respiratory distress recurred, and he died in March, 1953, 20 months after the first course of therapy.

Carcinoma of lung is, in almost all instances, incurable because of metastases to the mediastinum and beyond the thorax. Supervoltage radiation cannot alter cure rates under these circumstances. As with conventional radiation, it can have its effect only where it is applied, and it can be applied most effectively only when the site of involvement can be identified. There are, however, real benefits in the control of cancer in localized areas as in this case. Such effects are obtained with conventional equipment only if the lesion is very sensitive or if multiportal techniques are employed. In a review of 100 consecutive lung cancers treated in a radiotherapy department prior to installation of supervoltage equipment, it was noted that only 3 patients had received a tumor dose of 4,000 r or more. In the light of more recent experience it is likely that some among the remaining 97 patients would have had increased survival and diminished morbidity had it been feasible to offer them adequate radiation at minimum risk by supervoltage techniques.

When only conventional equipment is available, the question may arise whether supervoltage radiotherapy at some distant treatment facility should be considered. This is a complex problem in which the likelihood of physical benefit and possibility of comfort in mind to the patient must be weighed against hardship and disappointment that may result for both patient and family. Decisions that the physician must make for his patient are not wholly governed by radiobiology and cancer statistics.

If local facilities for conventional radiotherapy have proved adequate in comparable cases in the past, the basis for considering supervoltage will be for skin-sparing cosmetic effect and for the possible greater comfort of the patient.

If the patient's problem is of a type that has not been found to respond favorably to available facilities in the past, supervoltage radiation should be considered more seriously. The probability of benefit must be estimated on the basis of experience in similar cases, taking into account other recourses that are open to the patient, and the judgment of the patient's personal physician as to appropriate action.

The question as to whether a supervoltage unit should be obtained may be raised where radiotherapy facilities are being considered for installation, replacement, or extension. The trend of equipment is evidently in the direction of supervoltage. The factors that give some pause to such a commitment are both economical and medical. The cost of equipment, construction, and installation is high, and the economic return is not obviously greater than with conventional equipment. The increased potential for delivery of greater tumor dose is also an increased potential for greater radiation damage at a depth. This is attended by an increased responsibility to provide adequate personnel to undertake the safeguards of applied radiologic physics.

There are a number of developments such as the automobile, the airplane, and television that steamroller their way from the inevitable to the indispensable even if we doubt the value of their contribution to our total welfare.

Supervoltage was inevitable 20 years ago. The following excerpts are from an article by Leucutia and Corrigan[1] published in 1934:

All in all, it appears clear from the foregoing that the advances of the last few years have contributed enormously to the betterment of practical radiation therapy. In a time of such rapid progress, however, it is inevitable that a certain confusion here and there should arise. . . .

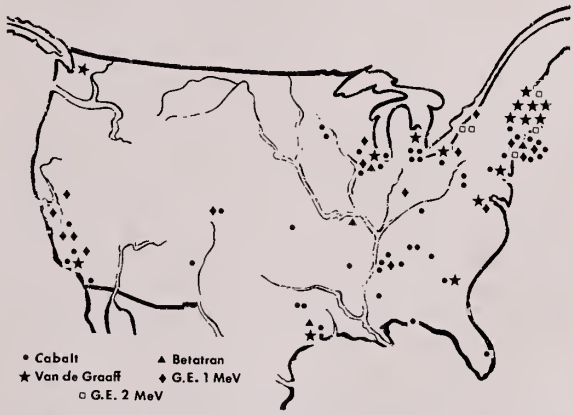

Fig. 8. Distribution of supervoltage units in the United States.

. . . The more deep-seated lesions, however, had to continue to remain untreatable until about 1920 when, finally, through modernization of roentgen engineering principles, the so-called "deep roentgen therapy" with 200 kv. was introduced. This, then, at once gave such an impetus to the whole art of the clinical application of radiation that the

subsequent decade must be considered as the most fertile in the history of the entire science of radiology. . . .

. . . Every irradiation acting more or less as a local agent, although in a considerably broader sense than an operation, will fail to bring about a control of the malignant process whenever a widespread generalization has already taken place. For this reason, super-high voltage roentgen therapy, while it may be expected to lead to decided improvement in the end-results . . . will not prove a panacea for the cancer problem as a whole.

If not indispensable, supervoltage is at least inescapable now. Of approximately 100 units now in use in this country, half have been installed in the past two years, and the number is likely to be doubled in the next two years (fig. 8).

CONCLUSIONS

Supervoltage represents an advance in the field of radiotherapy comparable to the contributions that modern anesthesia, antishock therapy, and antibiotics have made toward extending the application of surgery. While improvements of this type do not guarantee more cures, they do mean that the chance for cure at diminished risk can be offered to patients who might otherwise be denied such a chance. If a technique for thoracotomy or laparotomy should be developed which did not require a skin incision, this would produce an immediate revolution in surgical technique without an anticipated change in the effectiveness of surgical treatment. Radiotherapy by supervoltage techniques might be compared to nonincisional surgery. It permits a bolder approach and a decided cosmetic advantage, but the chance for cure is still proscribed by metastases beyond the area accessible to resection or adequate radiation.

Present methods are not too unsatisfactory for the early or operable cancers. It is in the field of incurable or inoperable cancer that advances are demanded. It must be expected that success in this field, within the forseeable future, will be in the nature of improved management short of cure, so that the patient is maintained for the greatest period of time, free of symptoms or incapacitation. The importance of this goal should not be underestimated. The alchemists of old sought an elixir of life so that man might never grow old. If they never found this, still they did not entirely fail, for their efforts continued in the name of medical research, which has increased life expectancy threefold in the past 300 years.

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Surgical Management of Thyroid Disease

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THE PURPOSE of this paper is to present a brief review and discussion of 124 thyroidectomies performed over a period of years in southeast Texas. In practically all cases, the surgery was performed and the preoperative and postoperative care managed by one surgeon (N. D.).

Dr. Malcolm E. White and his co-author are general surgeons.

Among 124 thyroidectomies about 21 per cent were for diffuse toxic goiter, 69 per cent for nodular goiter, 10 per cent for inflammatory goiter; none was for diffuse nontoxic goiter. Solitary thyroid nodules are often malignant but cannot be differentiated clinically from benign nodules. Recommendations concerning management of the various thyroid disturbances are noted.

TYPES OF GOITER

When dealing with enlargements of the thyroid gland, we have used the following classifications: diffuse nontoxic (simple colloid) goiter, diffuse toxic goiter (Graves' disease), nodular goiter, and inflammatory goiter.

Diffuse Nontoxic Goiter.—The diffuse nontoxic goiter is the simple colloid goiter. These enlargements of the thyroid occur when there is a relative or absolute deficiency of iodine. They are seen when there is an increased demand for thyroid hormone such as during puberty and adolescence, pregnancy, and the menopause. The thyroid gland responds to

iodine deficiency with hyperplasia followed by involution. Histologically, the follicles of the gland are enlarged and filled with colloid, and the epithelium is cuboidal or flattened. The treatment of the diffuse nontoxic goiter is not surgical unless, over a period of months or years, it becomes large enough to be unsightly or causes pressure on the trachea and recurrent laryngeal nerves.

Diffuse Toxic Goiter.—The diffuse toxic goiter or Graves' exophthalmic goiter has caused much discussion as to its etiology. It is believed that there is a disturbance in the thyropituitary axis with an over production of the follicle stimulating hormone of the pituitary. The increase in follicle stimulating hormone causes hyperplasia of the follicular elements of the thyroid with an increase in thyroid hormone production. Pathologically, the enlargement of the thyroid may be minimal. There is increased vascularity of the gland, and it is firm and "meaty" in consistency. Microscopically, there is marked hyperplasia and the follicles are lined with tall columnar cells with many papillary infoldings. Colloid is sparce, vacuolated, and pale. Often there are lymphocytes throughout the gland, and in some areas distinct germinal centers are formed.

The characteristic histologic picture of diffuse toxic goiter is changed somewhat by the administration of iodine and/or thiouracil, but because of limited space we will not discuss these changes.

The management of diffuse toxic goiter is surgical in most instances. Radioactive iodine probably should be reserved for older patients and for those who exhibit severe cardiac damage or other complications which place their condition in the hazardous group as far as surgery is concerned. Furthermore, it may be administered to younger persons who exhibit recurrent hyperthyroidism after one or more operations, especially if the patient has paralysis of a vocal cord, tetany, or some other technical barrier.

In the usual case of diffuse toxic goiter, the patient is prepared for surgery with propyl thiouracil followed later by Lugol's solution. The Lugol's solution is started about 7 to 10 days before surgery is performed. When the pulse rate has dropped to between 90 and 100 beats per minute and there is general improvement of the over-all clinical condition, a radical subtotal thyroidectomy is done. Both recurrent laryngeal nerves are exposed and protected during the procedure, and only a small amount of thyroid tissue is left on each side of the trachea. Great care is taken to avoid leaving a pyramidal lobe.

Although the determination of the basal metabolic rate has not been totally discarded, it has been found to be too inaccurate in determining when the patients are ready for operation. Therefore, we depend primarily on the decrease in the pulse rate and over-all clinical improvement before proceeding with surgery. In a few cases, it is necessary to hospitalize the patient for several days before surgery in order to check the sleeping pulse rate.

Nodular Goiter.—Nodular goiters may be associated with an excess, a normal amount, or a deficiency of thyroid hormone. Except in the cases of neoplasia, the nodularity is probably the result of unequal hyperplasia and involution within the gland. It is, of course, impossible to make a clinical distinction between a neoplastic goiter and one that is due to hyperplastic and involutional changes.

The nodular goiter associated with hyperthyroidism is managed much like the diffuse toxic goiter with propyl thiouracil, Lugol's solution, and subtotal thyroidectomy. These patients are frequently bad surgical risks, for they are usually older, have had goiter for several years, and often have auricular fibrillation, heart failure, or other degenerative diseases common to the older age groups.

There is a certain group of patients who present themselves with a nodule in the thyroid, but with no evidence of hyperthyroidism. When these nodules are examined histologically, they show a picture of hyperplasia that is indistinguishable from the diffuse hyperplasia seen in the diffuse toxic goiter. This finding has not been satisfactorily explained.

It has been stated that for all practical purposes, carcinoma does not occur with hyperthyroidism, but it should be pointed out that the presence of hyperthyroidism does not rule out the possibility of malignancy.

The problem of carcinoma, in the nodular goiter, is an important one. The solitary nodule is especially likely to be a carcinoma. The incidence of carcinomas in solitary nodules is reported to be 10 per cent by the Lahey Clinic (178 carcinomas in 1,971 solitary nodules). Oschner reported an incidence of 7.2 per cent of carcinoma in solitary nodules.

The benign neoplasms of the thyroid gland are made up of adenomas: the colloid adenoma, the fetal adenoma, and the Hürthle cell adenoma. Occasionally we find simple, degenerative, and dermoid cysts.

The malignant neoplasms of the thyroid are made up of papillary carcinoma (about 25 per cent), follicular adenocarcinoma (about 50 per cent), undifferentiated adenocarcinoma (about 20 per cent), Hürthle cell adenocarcinoma (about 5 per cent), and lymphoma.

The management of malignancies of the thyroid is surgical in all cases except those that are obviously inoperable at the operating table. When the lesion is well out into the lateral lobe with no lymph node involvement, a total lobectomy on the same side will be all that is necessary. If there is metastasis to the cervical nodes, a radical node dissection is done on the same side. If the lesion is near or involves the isthmus, a total lobectomy on the same side is done

with removal of the isthmus and a subtotal lobectomy on the opposite side.

In the cases of so-called lateral aberrant thyroid, which is considered to be a metastatic carcinoma in the lymph nodes, a radical node dissection and total lobectomy on the same side is done.

In the inoperable cases and in those in which resection of the lesion is incomplete, external irradiation may be advised. Treatment of the great majority of carcinomas with radioactive iodine is unsuccessful, for in most cases the neoplastic tissue will not take up the iodine.

Inflammatory Goiter.—The most important inflammatory conditions of the thyroid are subacute (granulomatous) thyroiditis, Hashimoto's struma lymphomatosa, Riedel's struma, and reactive thyroiditis. In most instances, the symptoms of thyroiditis are due to the presence of a goiter with compression of the surrounding structures. The diagnosis can be made preoperatively in many cases, and frequently no treatment at all is necessary. These patients should be observed at intervals for compression of the trachea and to exclude the possibility of overlooking malignant tumors. According to the Lahey Clinic, the best operative treatment is either partial resection of the gland or excision of the isthmus to relieve constriction of the trachea. Most patients with thyroiditis subsequently develop hypothyroidism regardless of how much thyroid tissue is removed.

PRESENT SERIES

For the 124 thyroidectomies done in this series, table 1 shows the distribution of cases as to diagnosis.

TABLE 1.—*Diagnoses in 124 Thyroidectomies.*

Type Goiter Diagnosed	Cases	%
Diffuse nontoxic	00	00
Diffuse toxic	26	20.96
Nodular	85	68.54
Inflammatory	13	10.48

Of the 26 diffuse toxic goiters, the youngest patient was 15 years of age and the oldest was 70. There were 20 females and 6 males. The pathologic diagnosis in 23 cases was diffuse hyperplastic goiter alone and in 2 cases, there were associated fetal adenomas. In 1 case, the diagnosis was diffuse hyperplastic goiter with thyroiditis. None of the diffuse cases showed associated carcinoma.

In the 85 nodular goiters, there were 10 carcinomas, an incidence of 11.76 per cent of the nodular goiters and an over-all incidence of 8.06 per cent of the 124 cases.

In the nodular group, 14 had symptoms of hyperthyroidism and 71 had no toxic symptoms. The youngest patient was 19 years of age and the oldest 72. Thirty-four of the 85 patients were above the age of 45 years, 48 were under the age of 45, and the age was not given in 3 cases. There were 82 females and 3 males in this group.

In the group that showed carcinoma, the youngest patient was 29 and the oldest was 59 years of age. There were 8 females and 2 males. Five of the carcinomas were papillary adenocarcinoma and 2 were papillary adenocarcinoma mixed with alveolar (follicular) carcinoma. There were 2 alveolar (follicular) carcinomas and 1 undifferentiated carcinoma. It probably should be emphasized that of the 85 patients having nodular goiters, there were only 3 males and 2 of these had carcinoma. Two of the 10 carcinomas were associated with lateral neck nodules.

In the thyroiditis group, of 13 patients, 11 had Hashimoto's disease, 1 Reidel's struma, and 1 subacute thyroiditis. Two of the cases of Hashimoto's disease were associated with adenomas. The oldest patient was 49 years of age and the youngest was 15. Nine of the 13 patients were between the ages of 15 and 40. There were 12 females and 1 male in this group. All of these patients had a clinical goiter, and in 5 cases a clinical diagnosis of thyroiditis was made. In the other 8 cases, the clinical diagnosis was either adenoma or "tumor" of the thyroid.

SUMMARY

One hundred twenty-four thyroidectomies are presented, and a brief review and discussion of goiters is given. The clinical preoperative classification that we use is presented.

The surgical management of the most important thyroid disturbances is discussed.

Emphasis is placed upon the fact that the solitary thyroid nodules are often malignant and that it is impossible to differentiate clinically between the benign and malignant nodules.

Thyroiditis is primarily a nonsurgical condition except in the later stages when constriction of the trachea may occur. In most instances, surgery is done to rule out a malignant process.

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CASE REPORTS

Hypothyroidism In Infancy

Review of Changing Concepts, Illustrated by Case of Sporadic Goitrous Hypothyroidism

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SEVERE hypothyroidism, whether designated as cretinism, juvenile myxedema, or by some other name, was one of the earliest endocrinopathies of childhood to be recognized. It has been studied for years by many clinicians in various parts of the world, but their contributions remained largely of a descriptive or therapeutic character, with little being added to our understanding of the basic nature of this disorder. The availability of radioactive iodine, and the greater insight into thyroid physiology which has resulted from its use, once more have focused attention on the problems of thyroid insufficiency in early childhood. Great strides have been made in the past few years with the use of this new diagnostic tool.

Radioactive iodine studies are increasing the understanding of iodine metabolism within the thyroid gland, including the causes of severe hypothyroidism. A case of a genetic defect of thyroidal iodine metabolism in a 20 month old infant with myxedema heart, retardation of bone age, anemia, and goiter without hernia, delayed dentition, developmental retardation, constipation, cretinism, or juvenile myxedema is reviewed.

A basic distinction must be maintained between those forms of hypothyroidism which occur in geographic areas of iodine deficiency and those which occur in territories where iodine is plentiful. The pathologic process which unfolds in the thyroid gland forced to function in an iodine-deficient environment is reasonably clear—the neonatal thyroid gland operating under these conditions is initially adequate, but because of continuous iodine lack it is subjected to unrelenting stimulation by high levels of pituitary thyrotropic hormone. As a consequence, the gland eventually undergoes exhaustion atrophy. Since the thyroid is known to function for many months in utero, it is obvious that various degrees of exhaustion atrophy may have developed by the time of birth. The rate at which clinical hypothyroidism appears depends largely on the ability of the individual thyroid gland to resist such exhaustion atrophy. When this occurs at a very early age, clinical cretinism is seen; if a modicum of thyroid function persists for a longer period of time, the disease is described as juvenile myxedema. Essentially, both diseases are simply time variants of the same condition.

Hypothyroidism in areas with a sufficiency of environmental iodine presents an entirely different problem. Two forms with relatively clear-cut etiology will be omitted for obvious reasons in the following discussion. The first of these is hypothyroidism consequent upon pituitary insufficiency as in pituitary infantilism; the second is iodine deficiency due to the intake of goitrogenic agents such as cabbage, rutabaga, sulfonamides, thiocyanate, perchlorate, or other antithyroid drugs. There remain two important types of sporadic neonatal thyroid insufficiency: (1) actual maldevelopment of the embryonic thyroid gland (therefore an athyreotic and certainly nongoitrous variety) and (2) an allegedly rare condition in which the thyroid is situated and developed normally, and in which goiter is apt to appear. That this condition is not as rare as might be supposed from the literature (only 32 cases of sporadic goitrous cretinism have been reported) is shown by the fact that 7 out of a group of 60 sporadic cretins studied by Wilkins and others[14] showed this condition. An interesting feature of this disease is the strong familial tendency noted by various observers.

Sporadic athyreotic cretinism was thought by some to be due to intrauterine thyroiditis with destruction of the gland. Whereas there is scant evidence for such a hypothesis, there is much to be said against it, and it is far more likely that this condition results from embryonal maldevelopment. With the help of tracer doses of radioiodine, the existence of this form of thyroid insufficiency is easily demonstrated, for there will be no accumulation of radioactivity over the thyroid area; furthermore, regions of radioactivity may be found at the base of the tongue or other sites where aberrant thyroid tissue is apt to remain in the course of development of the thyroid anlage. Thus the diagnosis of embryonic maldevelopment of the thyroid with accompanying hypothyroidism is no

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longer a presumptive diagnosis, but one which can be proven conclusively with the simplest of radioactive iodine tracer techniques. Studies of this type in sporadic cretinism without goiter have changed our concepts of cretinism versus juvenile myxedema. Formerly, many workers considered these to be different conditions. Recently Hutchison and McGirr[5] have reported a series of their own patients and called attention to other studies in the literature which indicate that the difference in these conditions is simply a question of time. Patients with a total neonatal absence of thyroid tissue develop cretinism, whereas those who have remnants of functional thyroid tissue (aberrant or otherwise) postpone the development of severe hypothyroidism until these fragments, unable to keep up with the increasing metabolic demands of the growing organism, undergo exhaustion atrophy and cease to function.

The second group of neonatally hypothyroid children, those in whom thyroid tissue is present and often goitrous, is perhaps even more interesting from the viewpoint of thyroid pathophysiology. In order to clarify the nature of the defect in these patients, it may be well to review briefly our present concepts of the nature of iodine metabolism within the thyroid gland. In their simplest terms, the transformations of iodine after it reaches the thyroid gland through the bloodstream are as follows (figure 1).

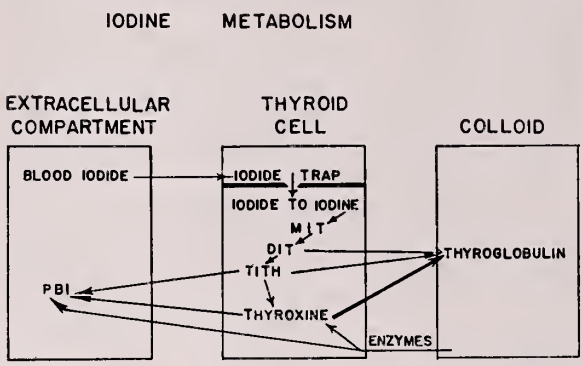

Fig. 1. Diagram showing iodine metabolism as related to the thyroid gland.

1. *Trapping of iodide.* Normally, iodide is taken up rapidly and concentrated as such within the gland. Such stored iodide may be discharged rapidly from the "iodide trap" by agents like thiocyanate or perchlorate which, however, have no action on iodine once it is organically bound. The effect of an oral dose of potassium thiocyanate on thyroid radioactivity some hours after administration of a tracer dose of radioiodine is, therefore, an excellent test for measuring the amount of iodide converted to an organic form (that is, thyroid hormone synthesis) in a given time interval.[11]

2. *Conversion of iodide to iodine.* This is an enzyme-catalyzed oxidation, and apparently it is by interference with this mechanism that the thiourea group of drugs exert their antithyroid effect.

3. *Organic binding of iodine.* Formation of (a) mono-iodo tyrosine, then (b) di-iodo tyrosine, then (c) coupling of two di-iodo tyrosine molecules to form thyroxine, and finally (d) de-iodination of thyroxine to tri-iodo thyronine, which is the most active form of the thyroid hormone.

4. *Storage* of these organic iodine compounds in the colloid in association with thyroglobulin.

5. *Release* of the thyroid hormone(s) into the circulation.

From the clinical point of view, interference with thyroidal iodine metabolism at any of these stages yields the same result—a deficiency of circulating thyroid hormone, the development of clinical hypothyroidism, a demand for more thyroid hormone, and as a result, an increased excretion of pituitary thyrotropic hormone. This in turn would cause thyroid hyperplasia, clinically evident as goiter, and eventually secondary adenomatous changes within the goiter such as are known to occur as a result of chronic overstimulation by thyrotropin.

Under these circumstances, it is easy to see that there could be five distinct types of sporadic (eventually goitrous) neonatal hypothyroidism, depending on the point at which a defect in thyroidal iodine metabolism occurred.

No proven cases of a faulty iodide trap in neonatal hypothyroidism have been published.

An inborn failure to convert iodide to iodine has not been observed as yet, but already there are numerous instances of inability (usually familial) to convert trapped iodine to an organic form. Stanbury and Hedge[8, 9] have reported a number of goitrous hypothyroid patients in whom there was active uptake of tracer iodine, which could be discharged from the thyroid promptly by a dose of thiocyanate even after considerable intervals of time. In addition to this evidence of the inability to form organic iodine compounds, the protein-bound iodine (PBI) in the serum was shown to be low, and the PBI within the thyroid tissue also was at very low levels. Lerman and others[4] have also studied a patient who showed an 87 per cent uptake of the tracer dose of iodine but had a concentration of only 0.07 per cent iodine within the thyroid tissue—a level as low as that seen in iodine-deficiency goiters. Wilkins and others[14] have made similar observations.

Metabolic defects further along the chain of iodine metabolism also have been observed. Silverman and Wilkins[7] have described a 6 year old goitrous cretin who showed active uptake of tracer iodine; the radioactivity was not discharged by thiocyanate, indicating that organic binding occurred. That there was no extrathyroidal factor (such as a hypothetical inability

of the peripheral tissues to respond) was proved by a satisfactory clinical response to the administration of thyroid.

Some error in the synthesis of the iodine-containing hormone is strongly suggested by the group of patients reported by Hutchison and McGirr.[3, 6] In these hypothyroid children there was active uptake of tracer iodine, not discharged by thiocyanate. Furthermore, the plasma radioiodine (I^{131}) level was elevated in 8 of 10 patients, the serum PBI^{131} was elevated in 7 of 10. Evidently some protein-bound, iodine-containing substance was being produced and released by the thyroid, but whatever it was, it did not have the physiologic actions of thyroid hormone. Some chemical evidence also was obtained in these studies indicating that the substance in the plasma was neither thyroxine nor tri-iodothyronine. In a somewhat similar case reported by Stanbury and others[10] mono- and di-iodotyrosine actually were demonstrated in the blood, indicating an excessive formation and release of thyroxine precursors.

In one of the 4 familial goitrous cretins described by Hubble,[2] the thyroid was shown to contain thyroxine, and 70 per cent of the plasma radioactivity was protein-bound, apparently as thyroxine. In this case, the explanation of the hypothyroidism is not at all clear, unless one assumes (1) that the rate at which thyroxine was produced or released was inadequate or (2) that thyroxine could not be converted to tri-iodothyronine, the presumed active form of the thyroid hormone.

Lastly, Hamilton[1a] has reported a case which indicates failure in the last step of the chain—hormone release. Adequate radioiodine uptake was observed, and chemical analysis of the thyroid tissue demonstrated the presence of di-iodotyrosine and thyroxine. Thus it appears that the mechanism for releasing the hormone into the peripheral circulation was defective.

Recently, we had the opportunity of studying a case of juvenile goitrous hypothyroidism due to a defect of thyroid physiology.

CASE REPORT

CASE 1.—R. F., a 20 month old boy, was brought to our attention because of a mass in the neck noted two months previously by the mother. Birth and early development were normal; first teeth appeared within 6 months, and walking and talking were not delayed. Severe eczema during the first 3 months of life (controlled by a change in the diet) and excessive reaction to the usual immunizations gave evidence of an allergic status. At 9 months of age, anemia was noted and treated with indifferent success by means of oral preparations of liver, "multiple vitamins," and vitamin B_{12}. There was no history of constipation, susceptibility to infections, or sensitivity to temperature. The appetite was generally poor. The mother considered the child to be normally responsive, alert, and active.

Two siblings of the patient, one younger and one older, showed no goiter or other superficial evidence of thyroid disease. The maternal grandmother was said to have had some thyroid trouble of an unspecified nature. One paternal uncle was known to have thyroid enlargement; on investigation, his thyroidal iodine uptake, urinary I^{131} excretion, PBI^{131} conversion ratio, and saliva–serum protein I^{131} ratio were found to be in the euthyroid range. Examination with the scintiscanner revealed diffuse activity over the entire thyroid with increased uptake in 3 nodules. Thus there was no evidence of a familial metabolic defect in this patient.

Physical examination revealed an active, alert, exceedingly negativistic child, measuring 32½ inches in length and weighing 26 pounds. (The normal average values for this age are about 33½ inches and 27 pounds). The skin was soft and moist; no cyanosis was observed. The facies were normal with no cretinoid stigmas. The front upper teeth showed some notching, but dentition was otherwise normal for the age. The neck revealed a diffuse, firm enlargement in the thyroid area, apparently smooth and well defined (fig. 2). It was not possible to listen for bruit.

Fig. 2. A 20 month old boy with enlargement of the thyroid area.

The chest had a normal configuration; percussion and auscultation were resisted actively. There was no umbilical hernia, and no enlarged viscera could be palpated. The testicles were descended, and the penis was normal in size for the age.

Laboratory studies revealed red blood cell counts averaging 2,370,000 per cubic millimeter, hemoglobin values averaging 11.7 Gm. per 100 cc., and a white blood cell count of 6,200 with 20 per cent polynuclear leukocytes, 72 per cent lymphocytes, 5 per cent monocytes, and 3 per cent eosinophils. Prothrombin and coagulation times were normal. On one occasion, the urine showed a 1 plus albumin and occasional hyaline casts. Roentgen study of the chest revealed normal lung fields and definite enlargement of the heart (cardiothoracic ratio of 0.64) with diminished pulsations as seen on fluoroscopy. These findings suggested the possibility of myxedema heart or extreme dilatation, the latter being far less likely. Roentgenograms of the hands showed only the capitate and hamate bones present, and none of the epiphyseal centers for the bases of the phalanges had appeared. The distal epiphysis of the radius was absent, conforming to a bone age of less than 1 year. A tracer dose of iodine was administered; the activity distributed itself evenly over the thyroid area with an uptake of 30.4 per cent at 24 hours and 12 per cent at 48 hours. Thus was revealed a marked iodine "dumping" in the second 24 hour period. No thiocyanate test was performed.

On the basis of these findings, a clinical diagnosis of inborn error of thyroid metabolism with sporadic goitrous hypothyroidism was made. It was predicted that a hyperplastic gland, similar to that seen after thiouracil treatment, would be found. Surgery was performed under general and endotracheal anesthesia. Some adhesions were observed between the sternothyroid muscles and the thyroid gland. Exposure revealed a tremendous thyroid gland; the right lobe extended well back beneath the sternocleidomastoid muscle and almost completely encircled the trachea. The left lobe was not quite as large as the right. The recurrent laryngeal nerve and the parathyroids were identified and carefully preserved. Before excision, we performed an intra-arterial infusion of 10 microcuries of carrier-free I^{131} and collected blood from the severed venous supply. (Unfortunately, a technical accident destroyed this sample before studies on it could be completed.) The right lobe of the thyroid gland was removed in its entirety before the left lobe was mobilized. A similar procedure was then carried out on the left side. In view of the extensive surgery, both surgeon and anesthesiologist felt that a tracheotomy was indicated, and this was done accordingly.

The postoperative course was stormy and complicated by considerable respiratory difficulties requiring frequent suctioning of the tracheotomy tube. The child was kept in an oxygen tent using Alevaire for moisture. Following the intramuscular administration of 10 mg. of cortisone daily, there was abrupt improvement in respiration and pyrexia; after a week, oral administration in divided doses was substituted. The drug was tapered off and finally discontinued before discharge of the patient from the hospital on the twentieth postoperative day.

The specimen removed at operation consisted of a smooth, firm, grayish gland weighing 53 Gm. (fig. 3). The cut

Fig. 3. Right and left lobes of the thyroid gland removed from the patient.

surface was lobulated, resilient, and moderately firm. After fixation, the lobular areas protruded markedly above the fibrous septums. Sections from various portions of the gland showed the same pattern: The acini were irregular in shape, and almost all of them showed no lumen and only a solid mass of epithelial cells. A few irregular lumens without colloid and rarely an acinus containing pale pink colloid were found. The epithelial cells were large, with abundant pink, granular cytoplasm and fairly uniform oval to round nuclei (fig. 4). Occasional mitoses were present. No collections of lymphocytes were noted.

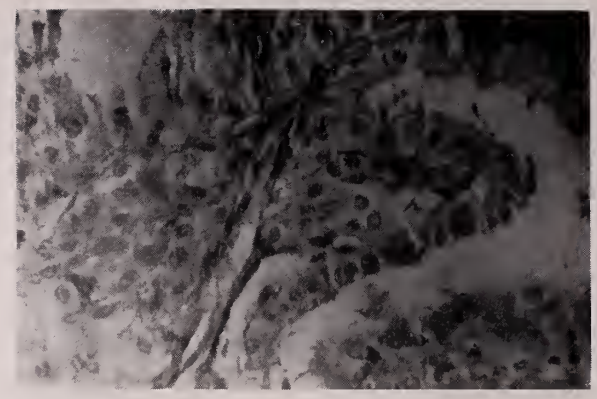

Fig. 4. Section of tissue from the removed thyroid gland showing irregularly shaped acini with no lumens and a solid mass of epithelial cells.

Blocks of tissue were frozen immediately in dry ice and were subsequently studied by Dr. J. B. Trunnell. The in vitro iodine metabolism studies on this material were performed by means of techniques already reported by his group.[13] Table 1 represents the result of these studies, as compared to thyroid tissue (unfrozen) obtained from 2 aborted human embryos. These studies yield further proof that the thyroid tissue from this patient apparently was unable to incorporate iodine into an organic form, although its capacity to trap iodide was unimpaired. The possibility that quick freezing the tissue accounts for the difference

TABLE 1.—*Percentage of Radioactivity in Iodine Metabolism Studies on Frozen Tissue from a 20 Month Old Patient and on Unfrozen Tissue from 2 Aborted Embryos.*

	Patient	17 Week Embryo	18 cm. Embryo*
Iodide	97.7	75.9	16.6
Monoiodotyrosine	0.8	11.8	43.3
Di-iodotyrosine	0.2	1.2	5.2
Thyroxine & thyroxine-like compounds	0.2	3.6	16.6

*Exact duration of gestation unknown.

between the goitrous thyroid and the other tissues with which it is compared is unlikely in view of the fact that cell-free thyroid juice can bring about organic binding, at least as far as monoiodotyrosine.[12]

Postoperatively, the child was maintained on 0.1 mg. of L-thyroxine daily. Attempts to increase the dose beyond this level resulted in restlessness and wakefulness. Bone age improved rapidly; by the time the child was 2 years 8 months old, the bone age had reached 2 to 2½ year level. Growth also accelerated considerably; in the third year of life, the patient's total growth was ½ inch in excess of the predicted growth rate of normal children. The cardiac outline showed slow but progressive change. Within the first six months after surgery and thyroxine, there was no change in the cardiothoracic ratio. Within the next six months, however, it decreased from 0.61 to a normal value of 0.50 (fig. 5). This of course confirms the original suspicion of myxedema heart, but offers no explanation for the great length of time required for the cardiac outline to diminish to normal.

DISCUSSION

This patient displays many features of exceptional clinical interest. The evidence favoring severe thyroid hypofunction—myxedema heart, retardation of bone age, anemia, and goiter—was unaccompanied by hernia, delayed dentition, developmental retardation, or even constipation to say nothing of actual cretinism or juvenile myxedema. Those who still cling to the all-or-none concept of hypothyroid symptomatology held by Means years ago might balk at calling this an instance of hypothyroidism. By way of reply, it might be pointed out that such a rigid concept has seldom survived in any syndrome; indeed, analogous dissociation of the severity of various symptoms already has been described in the hyperthyroid state.[1] It is also interesting that a well developed goiter already was present in this patient at the age of 20 months, whereas goiters usually have been reported to appear in such patients after the age of 5 years. One might speculate, by way of explanation, that this particular gland responded with unusual alacrity to pituitary thyrotropic stimulation.

Intensive study by means of radioactive iodine techniques may well alter the future management of such cases. If thyroid uptake studies were to demonstrate accumulation of radioiodine and subsequent iodine "dumping" with or without thiocyanate, and the determination of the serum PBI^{131} were to confirm the failure to synthesize thyroid hormone, then a therapeutic trial with L-thyroxine would be in order. In addition to alleviating the clinical signs and symptoms of hypothyroidism, such treatment would inhibit overproduction of pituitary thyrotropic hormone, interrupt overstimulation of the defective thyroid, and possibly prevent the subsequent development of goiter. Then, too, these studies in the presence of a goiter would serve to differentiate it from thyroid malignancy, which must be suspected whenever rapid thyroid enlargement occurs. Avoidance, or at least postponement, of such extensive surgery is of utmost importance, for total thyroidectomy at this age carries with it grave surgical risks. Last and least important, these patients offer a unique opportunity to explore anomalies of thyroid function, and consequently they deserve to be studied by every research tool at our disposal if we are to advance our knowledge of thyroidal iodine metabolism.

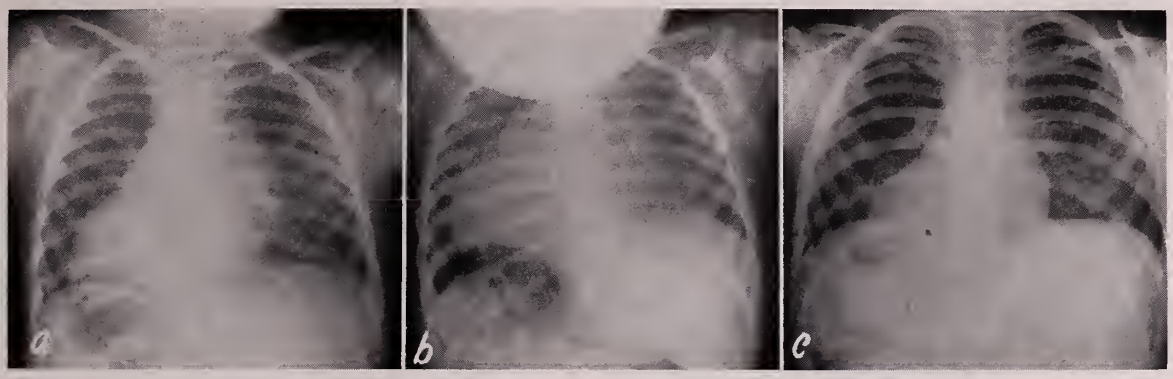

Fig. 5. Roentgenograms showing a decrease in the patient's cardiothoracic ratio which took place during the second six months following surgery for excision of the thyroid gland and tracheotomy.

SUMMARY

Present concepts of thyroid insufficiency in the infant have been reviewed, and an additional instance of a genetic defect of thyroidal iodine metabolism is reported.

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12. Taurog, A.; Potter, G. D.; and Chaikoff, I. L.: Conversion of Inorganic I^{131} to Organic I^{131} by Cell-Free Preparations of Thyroid Tissue, J. Biol. Chem. 213:119-134 (March) 1955.
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Dr. Goldzieher, 1133 Medical Arts Building, San Antonio. Dr. Hartman, 1202 Nix Professional Building, San Antonio.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Dallas, April 27-May 1, 1957. Dr. Milford O. Rouse, Dallas, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.
American Medical Association, Clinical Meeting, New York, June 3-7, 1957. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

JANUARY

Texas Radiological Society, Corpus Christi, Jan. 18-19, 1957. Dr. J. R. Riley, Corpus Christi, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas, Secy.
Texas Society of Pathologists, Galveston, Jan. 26-27, 1957. Dr. Sidney W. Bohls, Austin, Pres.; Dr. M. H. Grossman, St. Paul Hospital, Dallas, Secy.

Twelfth District Society, Cleburne, Jan. 8, 1957. Dr. R. Henry Harrison, Bryan, Pres.; Dr. W. M. Avent, 1716 Colcord, Waco, Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 28-30, 1957. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

FEBRUARY

American Academy of Allergy, Los Angeles, Feb. 4-6, 1957. Dr. Carl E. Arbesman, Buffalo, N. Y., Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.
American College of Radiology, Chicago, Feb. 8-9, 1957. Dr. Wilbur Bailey, Los Angeles, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Secy.
American College of Surgeons, New Orleans, Feb. 4-7, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

Texas Association of Obstetricians and Gynecologists, San Antonio, Feb. 23, 1957. Dr. Carey Hiett, Fort Worth, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.
Texas Proctologic Society, Houston, February, 1957. Dr. Harry B. Burr, Houston, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.
Texas Public Health Association, Houston, Feb. 17-20, 1957. W. T. Ballard, Tyler, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas. Executive Secy.
Texas Urological Society, Dallas, Feb. 3, 1957. Dr. Rex Carter, Austin, Pres.; Dr. J. D. Mitchell, Jr., 3707 Gaston Ave., Dallas, Secy.

First District Society, Pecos, Feb. 12, 1957. Dr. E. W. Schmidt, Pecos, Pres.; Dr. John Dunn, Pecos, Secy.

National and Regional

American Academy of Dermatology and Syphilology. Dr. George M. Lewis, N. Y., Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.
American Academy of General Practice, St. Louis, March 25-28, 1957. Dr. J. S. De Tar, Milan, Mich., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.
American Academy of Obstetricians and Gynecologists, Los Angeles, April, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.
American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Earling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.
American Academy of Pediatrics, Chicago, Oct. 5-10, 1957. Dr. Edgar E. Martmer, Detroit, Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.
American Association for Thoracic Surgery, Chicago, May 4-7, 1957. Dr. Cameron Haight, Ann Arbor, Mich., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.
American Association of Genito-Urinary Surgeons, Hot Springs, Va., May 1-3, 1957. Dr. Archie L. Dean, New York, Pres.; Dr. John A. Taylor, 2 E. 54th St., New York 22, Secy.
American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.
American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.
American College of Allergists, Chicago, March 20-22, 1957. Dr. Ethan Allen Brown, Boston, Pres.; Dr. Giles A. Koelsche, Mayo Clinic, Rochester, Minn., Secy.
American College of Chest Physicians, New York, May 29-June 2, 1957. Dr. Herman J. Moersch, Rochester, Minn., Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.
American College of Gastroenterology, Boston, Oct. 21-26, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.
American College of Physicians, Boston, April 8-12, 1957. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.
American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.
American Congress on Obstetrics and Gynecology. Dr. R. Gordon Douglas, 116 S. Michigan Ave., Chicago 3, Chm.
American Dermatological Association, Belleair, Fla., April 13-17, 1957. Dr. Carroll S. Wright, Philadelphia, Pres.; Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.
American Gastro-Enterological Association, Colorado Springs, May 17-18, 1957. Dr. Sam A. Wilkinson, Jr., Boston, Pres.; Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secy.
American Gynecological Society, Hot Springs, Va., May 27-29, 1957. Dr. Norman F. Miller, Ann Arbor, Mich., Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.
American Heart Association. Dr. Irvine H. Page, Cleveland, Pres.; Mr. Irving B. Hexter, 44 E. 23rd, New York 10, Secy.
American Hospital Association, Atlantic City, Sept. 30-Oct. 3, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.
American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.
American Neurological Association, Atlantic City, June 17-19, 1957. Dr. H. Houston Merritt, New York 32, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.
American Ophthalmological Society, Hot Springs, Va., May 30-June 1, 1957. Dr. Frederick C. Cordes, San Francisco, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.
American Orthopedic Association, Hot Springs, Va., June 24-27. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.
American Pediatric Society, Carmel, Calif., June 17-19, 1957. Dr. Daniel C. Darrow, Mission, Kan., Pres.; Dr. A. C. McGuinness, 1427 I St., N.W., Washington 5, D. C., Secy.

American Proctologic Society, New Orleans, April 24-27. Dr. Rufus C. Alley, Lexington, Ky., Pres.; Dr. Karl Zimmerman, 3500 Fifth Ave., Pittsburgh 13, Secy.

American Psychiatric Association, Chicago, May 13-17, 1957. Dr. Francis J. Braceland, Hartford 2, Conn., Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1789 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 14-18, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Society of Clinical Pathologists, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, Chicago, May 8-10, 1957. Dr. Loyal Davis, Chicago, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association, Pittsburgh, May 6-9, 1957. Dr. George C. Prather, Brookline, Mass., Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, Delegates and Assembly, Miami Beach, Fla., April 25-27, 1957. Dr. Charles W. Pavey, Columbus, Ohio, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Kansas City, May 5-10, 1957. Dr. Howard W. Bosworth, Los Angeles, Pres.; Mrs. Morrell DeReign, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

South Central Association of Blood Banks, New Orleans, 1957. Dr. C. D. Fitzwilliams, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum, Fort Worth, May 5-7, 1957. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.

Southwest Regiinal Cancer Conference, Fort Worth, Fall, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.

Southwestern Medical Association, El Paso, Oct. 8-11, 1957. Dr. Celso Stapp, El Paso, Pres.; Dr. Russell L. Deter, 1501 Arizona St., El Paso, Secy.

Southwestern Society of Nuclear Medicine, Houston, April, 1957. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Wichita, Kan., April 15-17, 1957. Dr. John V. Goode, Dallas, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Assemhly, Shreveport, September, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Brady, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 308 W. 15th, Austin, Executive Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, Dallas, April 28-29, 1957. Dr. W. A. Ostendorf, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Chapter, American College of Chest Physicians, Dallas, April 28, 1957. Dr. Walter C. Brown, Corpus Christi, Pres.; Dr. L. M. Shefts, 510 Moore Bldg., San Antonio, Secy.

Texas Chapter, American Association of Puhlic Health Physicians, Dallas, April 28, 1957. Dr. W. V. Bradshaw, Jr., Fort Worth, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Club of Internists. Dr. Hatch Cummings, Houston, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society, Dallas, April 28-29, 1957. Dr. Thomas L. Shields, Fort Worth, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association, Dallas, April 28, 1957. Dr. Edwin L. Rippy, Pres.; Dr. Richard E. Nitschke, 1702 Nix Professional Bldg., San Antonio, Secy.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 1609 Colorado, Austin, Executive Director.

Texas Geriatrics Society, Dallas, April 30, 1957. Dr. Wendell D. Gingrich, Galveston, Pres.; Dr. J. O. S. Holt, Jr., 3707 Gaston Ave., Dallas, Secy.

Texas Heart Association, Dallas, April 28, 1957. Dr. D. D. Warren, Waco, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Lihrary Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Houston, May 14-16, 1957. Mr. H. M. Cardwell, Lufkin, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Industrial Medical Association, Dallas, April 30, 1957. Dr. V. C. Baird, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neuropsychiatric Association, Dallas, April 28, 1957. Dr. John L. Otto, Galveston, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, Dallas, April 30, 1957. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Dallas, April 29, 1957. Dr. John J. Hinchey, San Antonio, Pres.; Dr. Margaret Watkins, 3629 Fairmount, Dallas, Secy.

Texas Pediatric Society, Austin, Oct., 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Rheumatism Association, Houston, Decemher, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society for Mental Health, Dallas, March 7-9, 1957. Dr. Carmen Miller, Dallas, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Texas Society of Anesthesiologists, Dallas, April 28, 1957. Dr. Charles R. Allen, Galveston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Dallas, April 28, 1957. Dr. John McGivney, Galveston, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Dallas, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.

Texas Society of Plastic Surgeons, April 27, 1957. Dr. Thomas D. Cronin, Houston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, Dallas, April 1-2, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Dallas, April 28, 1957. Dr. Russell Holt, El Paso, Acting Pres.;Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.

Texas Tuherculosis Association, Fort Worth, April 4-6, 1957. Dr. Howard T. Barkley, Houston, Pres.; Mrs. J. V. Cooper, Waxahachie, Secy.

United States-Mexico Border Public Health Association, San Antonio, April 9-12, 1957. Dr. Guillermo Soheranes, Hermosillo, Sonora, Mexico, Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

District

Second District Society, Big Spring, 1957. Dr. Clyde Thomas, Jr., Big Spring, Pres.; Dr. Nell W. Sanders, P. O. Box 191, Big Spring, Secy.

Third District Society, Luhhock, March 30, 1957. Dr. A. G. Barsh, Lubbock, Pres.; Dr. William Klingensmith, 708 Monroe St., Amarillo, Secy.

Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.

Fifth and Sixth Districts Society. Dr. James C. Sharp, Corpus Christi, Pres.; Dr. Winston E. Riley, 2400 Morgan, Corpus Christi, Secy.

Seventh District Society, Austin, March, 1957. Dr. Leslie C. Colwell, Austin, Pres.; Dr. Robert N. Snider, 2410 Rio Grande, Austin, Secy.

Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

Ninth District Society, Navasota, April 3, 1957. Dr. C. Marius Hansen, Navasota, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, 2, Secy.

Tenth District Society. Dr. Taylor Walker, Beaumont, Pres.; Dr. Alan E. Huhner, 590 Center, Beaumont, Secy.

Eleventh District Society, Jacksonville, Spring, 1957. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.

Thirteenth District Society. Dr. R. L. Nelson, Wichita Falls, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society, Mount Pleasant, April, 1957. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Fall, 1957. Dr. John D. Gleckler, 211 N. Fannin, Denison, Chm.

Dallas Southern Clinical Society, March 18-20, 1957. Dr. Howard C. Coggeshall, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

New Orleans Graduate Medical Assembly, March 11-14, 1957. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 626 Maison Blanche Bldg., New Orleans 16, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July, 1957. Dr. C. Forrest Jorns, 5644 Lawndale, Houston, Secy.

State Tumor Conference, Wichita Falls, April 3, 1957. Mrs. Chester Robinsin, Wichita County Medical Society Tumor Clinic, Wichita Falls, Secy.

Board Examinations

Texas State Board of Examiners in Basic Sciences, next examination, April and October, 1957. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

Texas State Board of Medical Examiners, Fort Worth. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

MEDICOLEGAL NOTES

Nontherapeutic Sterilization: Civil Liability

The question of possible civil liability in regard to nontherapeutic sterilization procedures will be dealt with in this last article relating to the various legal aspects of sterilization.

Again it must be stated that this is an area in which there has been little litigation, and as a result the decision a court in this state might reach, should the matter be brought before it, is not definite. This in itself is a real danger. The mere unpredictability of the result should direct a course of utmost caution in acting in this area of the law. Should our courts be called upon to decide this issue of nontherapeutic sterilization, they would use the cases in other states dealing with this matter as well as the reasoning applied in similar or comparative areas of the law to guide them. It is with this in mind that the following discussion is presented.

In the last issue of the *Journal* (p. 879) was discussed the possible criminal liability resulting from nontherapeutic sterilization procedures. From this area of possible criminal violation arises a corresponding possibility of civil liability. If a physician is held to be in violation of a criminal law, such as Article 1166 dealing with mayhem or maiming, then this, in turn, would give rise to what is known as "negligence per se." Negligence per se might be described better by saying it is negligence in itself or negligence as a matter of law. As an example:

John and Jean are husband and wife. John decides that he wishes to be sterilized, and such desire is not because of medical necessity. The procedure is performed. Later Jean discovers this fact, and because she had wanted more children and because this desire has been denied by the sterilization, she sues the physician. She is able to show that the procedure was in violation of a criminal statute (Art. 1166). As a result of being able to show this violation, she has established negligence per se on the part of the doctor. All that would be necessary from this point on would be to show damages, and the fact that she would be unable to have the additional children she desired most likely would give the jury all the evidence it would need to hold that she had been damaged.

Taking this same example, assume that John has the sterilization procedure performed. Subsequently, Jean dies and John remarries but does not disclose the fact of the sterilization to his second wife. After being unable to have children, the second wife discovers that John is sterile due to the sterilization procedure which had been performed previously. At this point, the second wife may well have two avenues of approach. She may apply to the court for an annulment or divorce because of a fraud being perpetrated upon her, or she may elect to sue the physician who performed the procedure. She might well base her suit in the latter case upon the fact that she was denied the right to have children, not through any fault of her own doing, but because of an act on the part of John and the physician. This might be sufficient to hold the physician liable for damages without even showing the violation of a criminal statute as was mentioned earlier.

The last example brings up another situation mentioned in previous articles, that dealing with consent. As noted before, I believe that it is of utmost importance to obtain the consent of *both* spouses in any procedure which will or might result in sterilization. Although there is authority to support the reasoning that each person has an inherent right to decide what is to be done to his or her own body, I believe that in procedures dealing with *therapeutic* sterilization, it is advisable to gain the consent of both spouses because this procedure definitely will have a direct effect on the other spouse, namely, the ability to have children. The question then posed is, What effect does consent by one spouse or both spouses have upon possible civil liability for *nontherapeutic* sterilization?

In the preceding two examples we saw that the consent of one spouse would not necessarily offer any protection to the operating physician because the wrong which had been done was not done to the consenting spouse but to the spouse who had not consented or who was unaware of the condition, such wrong being denial of the right to have children.

Let us now take two like situations in which (1) both spouses have consented to this procedure being performed and (2) John, either single or married, is the sole party to consent but after the procedure regrets his decision. Both parties sue the physician performing these procedures. Even though these facts are different, the results reached likely would be the same. Should either of these situations come to trial, the attorney for the physician undoubtedly would use the doctrine of "pari delicto" (a party to the crime cannot take advantage of his wrong) in defending this action or possibly the doctrine of "volenti non fit injuria" (he who consents is not damaged). These doctrines, though seemingly a good defense to an action based on the two examples, might well prove of no avail. This easily could result from the courts holding that "public policy" was involved as a result neither of these doctrines of law would apply, and any consent given, whether written or oral, would be of no avail. In view of some of the ideas which have been expressed on this subject of sterilization, the court might hold that because the interest of society and the welfare of our state is involved, this is an issue which must be resolved without some of the defenses that might ordinarily be available. The courts often have held that where public policy or interest is involved, the good of the public must control even though certain individuals apparently may suffer. If this reasoning should be applied by the courts, even though an individual may have consented to a

nontherapeutic sterilization procedure, liability on the part of the physician easily could result.

As is evidenced by some of these examples, there are some grave dangers and problems in regard to nontherapeutic sterilization, and ones which easily could result in civil liability on the part of the physician performing such a procedure. Even though there has been little litigation in this area, there is no assurance that this lack of action will continue. With this possibility in mind, it is my opinion that from a legal standpoint any sterilization procedure which is performed which does not find its justification based upon therapeutic reasons is exceedingly dangerous.

—PHILIP R. OVERTON, LL.B., Austin.

Law-Science Course to Include Doctors

"Medicolegal Aspects of the Face, Head, and Neck" will be the subject of the midwinter law-science short course to be offered by the University of Texas Law-Science Institute in Austin, February 7-9. Designed primarily for trial lawyers, the course also will be open to physicians, Dr. Hubert W. Smith, director, has announced, and trial sequences in which attorneys will examine and cross examine medical specialists will be included.

Among the doctors who will assist in instruction are Drs. Francis A. Echlin, New York University, New York; E. S. Gurdjian, Wayne University, Detroit; and Howard P. Rome, Mayo Clinic, Rochester, Minn. Others include Drs. Truman G. Blocker and Stephen R. Lewis, Galveston, maxillofacial injuries; Drs. R. N. Cooley, Galveston; John E. Skogland, Houston; and Louis M. Hefer, San Antonio, and C. M. Pomerat, Ph.D., Galveston, head injuries; and Drs. Hanes H. Brindley, Temple, and Ruth Jackson, Dallas, neck injuries. Eleven lawyers from Alabama, Florida, Illinois, Minnesota, New York, Oklahoma, and Texas will participate.

Fee for the course is $50, plus $5 for a banquet and certificate showing completion of the course; fee for a single day is $20.

Hoxsey Treatments Declared Worthless

For the second time, a federal court has determined that the Hoxsey medicines for internal cancer are worthless. A news release from the Food and Drug Administration of the Department of Health, Education, and Welfare reports that a jury in Pittsburgh, Pa., returned a verdict November 15 that these medicines, in pill form, were illegally offered as an effective treatment for cancer, and the court ordered their destruction.

This action, however, does not end the Hoxsey clinics nor their treatments, the release said. An injunction is being sought to stop further interstate shipment of the pills. Harry M. Hoxsey has continued to promote his cure for more than 30 years, notwithstanding numerous local and state court actions.

Legislative Proposals

The broad outline of legislative proposals to come from the administration in the newly convened eighty-fifth Congress has been outlined by the Department of Health, Education, and Welfare Secretary Marion B. Folsom in several news conferences. Among the proposals are federal grants to medical schools for teaching facilities, authorization for smaller insurance companies to pool resources without violating the antitrust laws in an effort to encourage expansion of voluntary health insurance, increased attention to problems of older persons, continued expansion and improvement in vocational rehabilitation, and expansion of staff and facilities of the Food and Drug Administration.

TEXAS AND TEXANS

Dallas Southern Clinical Society

General assemblies, round-table luncheons, postgraduate lectures, panel discussions, a clinicopathologic conference, and exhibits will be featured during the twenty-sixth annual conference of the Dallas Southern Clinical Society March 18-20.

Postgraduate lectures will be given on common skin diseases, the hemangiomas, care of chest injuries, intracranial lesions in the aged, breech presentation, the menopause, the diabetic in stress, migraine headache, how to lessen coronary heart disease, medical treatment of asthma, diseases of the eye, the common cold, hemorrhagic diseases, hypertension in everyday practice, pitfalls in general surgery, hernia repair, knee and ankle injuries, immunizations in pediatrics, peptic ulcers, present methods of treatment of tuberculosis, the stomach and duodenum, polyps of the large bowel, impotence in the male, and psychotherapy in general practice.

Guest speakers will be Drs. Carl E. Badgley, Ann Arbor, orthopedic surgery; Leo H. Bartemeier, Baltimore, psychiatry; John I. Brewer, Chicago, obstetrics and gynecology; Joe R. Brown, Rochester, neurology; W. Edward Chamberlain, Philadelphia, radiology; Amos Christie, Nashville, pediatrics; John J. Conley, New York, otolaryngology; Walter H. Fink, Minneapolis, ophthalmology; Tinsley R. Harrison, Birmingham, internal medicine; John C. Jones, Los Angeles, thoracic surgery; Robert A. Kimbrough, Philadelphia, obstetrics-gynecology; Wyland F. Leadbetter, Boston, urology; Peter N. Pastore, Richmond, otolaryngology; R. Townley Paton, New York, ophthalmology; Wesley W. Spink, Minneapolis, internal medicine; John D. Stewart, Buffalo, surgery; Shields Warren, Boston, pathology; and Claude E. Welch, Boston, surgery.

Details of registration, and requests for accommodations may be obtained from the Dallas Southern Clinical Society, Medical Arts Building, Dallas 1.

Personals

Dr. Michael E. DeBakey, Houston, was one of 10 American physicians and researchers honored by *Modern Medicine* this month for distinguished achievement. Winners of the annual awards, featured on the January 1 cover of the semimonthly journal, were nominated by deans of medical schools and readers of the periodical; final selection was by the board of editors. Dr. DeBakey was cited for "making aortic resection a safe procedure and his work on replacement of vascular defects with homografts and plastic bridges."

Dr. Neil D. Buie, Marlin, has served as chairman of a committee which adopted a code of standards for the medical supervision of health resorts. The committee worked under the auspices of the Association of American Spas.

Dr. Everett L. Goar, Houston, is a member of the board of trustees of the newly established National Medical Foun-

dation for Eye Care, a nonprofit scientific and educational institution.

Dr. Albert T. Hume, Temple, has been appointed manager of the veterans administration hospital at Outwood, Ky. He formerly was director of professional services at the Veterans Administration center in Temple.

Drs. George R. Herrmann, Milton R. Hejtmancik, Zang Z. Zao, J. R. Wright, and *Allen Shields,* all of Galveston, participated in the November program of the fifth Congreso Inter-Americano de Cardiologia held in Cuba. *Dr. Herrmann* was elected to the Council of Honor for meritorious scientific services.

Dr. E. J. McCranie, acting chairman of the Department of Psychiatry at Southwestern Medical School of the University of Texas, Dallas, since 1953, has been named professor of psychiatry at the Medical College of Georgia, Augusta.

Girls were born to *Dr. and Mrs. Irvin M. Cohen* October 27 in Galveston and *Dr. and Mrs. Robert Guy,* November 10 in Galveston; *Dr. and Mrs. Wray McCash* became parents of twin girls August 26 in Galveston.

New parents of boys are *Dr. and Mrs. James B. Harle,* November 15, in Bellville; *Dr. and Mrs. S. G. Thompson* November 10 in Galveston; and *Dr. and Mrs. Patrick H. Pappas,* September 3, in Galveston.

Patient Care Commission Elects

The Texas Commission on Patient Care at its latest meeting early in December in Dallas elected new officers. Sister Mary Vincent, administrator of St. Joseph's Hospital in Fort Worth was reelected chairman; Dr. Russell D. Holt of Meridian was elected vice-chairman; and Ted Bowen, administrator of the Methodist Hospital in Houston was reelected treasurer.

Mrs. Richard C. Bellamy of Liberty, President of the Woman's Auxiliary to the Texas Medical Association, and Dr. Joe A. Shepperd of Burnet, president-elect of the Private Clinics and Hospitals Association of Texas, were asked to attend future meetings of the commission or to send representatives so that they can bring their viewpoints on improving patient care.

A survey of nursing needs and resources in Texas is to be done by representatives from medicine, hospital administration, nursing, general education and the consumer public in association with the Commission. It is hoped by commission members that this survey will enable planning for the future of Texas health needs.

The commission has received its charter from the Secretary of State and is now a nonprofit corporation in Texas, directed by the appointed members representing the Texas Medical Association, Texas Hospital Association, Texas Graduate Nurses' Association, and Texas League for Nursing.

As an example of ingenious methods adopted for financially supporting the Texas Commission on Patient Care, the commission points to Brackenridge Hospital in Austin. As Brackenridge had no money in its budget to support the program of the commission, the staff sold tickets to a smorgasbord dinner. More than 400 tickets were sold to the meal, prepared and served in the hospital, and checks totaling $306.85 were turned over to the Texas Hospital Association for the commission.

Rumph Nominated to Head AAPS

Two Texans figured prominently in the October 19-20 delegates' interim meeting of the Association of American Physicians and Surgeons in Chicago. Dr. Mal Rumph, Fort Worth, was nominated for the office of president-elect. He is beginning his fifth year as director of the AAPS essay contest. Dr. E. E. Anthony, Jr., Fort Worth, presented a report of the membership committee, of which he is chairman.

University of Texas Medical Branch

Dr. Edgar Zwilling, director of developmental biology, National Research Foundation, and Dr. William P. Longmire, Jr., professor of surgery, University of California School of Medicine, were recent guests at the University of Texas Medical Branch, as were Dr. William W. Cort, Johns Hopkins University School of Hygiene and Public Health; Col. Victor Byrnes, office of the surgeon general, Washington; and Dr. Richard J. Bing, professor of medicine, Washington University School of Medicine.

Texas Association of Blood Banks

At a recent meeting of the Texas Association of Blood Banks, members voted to enlarge the scope of the association to include blood banks in the states of Louisiana, Arkansas, Oklahoma, New Mexico, and Mississippi, and to change the name of the organization to South Central Association of Blood Banks.

Dr. C. D. Fitzwilliam, Fort Worth, took office as president; other officers for the coming year are Dr. Louis Manhoff, Jr., San Antonio, president-elect; Dr. Jarrett E. Williams, Abilene, vice-president; Miss L. Jean Stubbins, M. T., Galveston, treasurer; and Miss Marjorie Saunders, LL.B., Dallas, secretary.

OUT OF STATE

Nurses Invited to ACS Meeting

Nurses have been invited to be the guests of the American College of Surgeons at a four day meeting in New Orleans February 4-7. An extensive special program has been arranged for them, and there will be hospital field trips. Nurses also will be welcome to attend all sessions prepared for surgeons and surgical specialists. The nurses' program will include panel discussions and symposiums on "The Health Team in Action in Surgery of the Lung," "Comprehensive Care of Patients with Burns," "Understanding the Aging Person and His Needs," "Working Together to Improve the Surgical Care of Geriatric Patients," "Behind the Scenes in Thoracic Surgery," "Immediate Postoperative Care," and "Problem Clinic on Recovery Rooms." There will be no registration fee.

MEXICO SITE OF SURGICAL MEETING

The International College of Surgeons has invited all physicians and medical personnel to attend its international congress in Mexico, D. F., February 24-28. All phases of surgery will be discussed by surgeons from throughout the world in a four day session at the University of Mexico; social events have been planned; and two postcongress tours have been arranged.

Registration for the congress and reservations for transportation and hotel accommodations are being handled by the International Travel Service, Inc., Palmer House, Chicago 3.

Postgraduate Courses

Radioisotopic Therapy of Malignant Diseases, January 14-15, Dallas.—This course was offered through the Postgraduate Division, University of Texas Southwestern Medical School, and was made possible by a grant from the Texas Division, American Cancer Society.

Anesthesiology, January 23-25, Houston.—The mechanics of pulmonary ventilation, pharmacology and anesthetic drugs, premedication and preoperative preparation of the patient, and related circulatory problems will be stressed. Physicians, dentists, and nurse anesthetists may apply by writing the University of Texas Postgraduate School of Medicine, Texas Medical Center, Houston 25.

Rheumatic Diseases, Houston, February 27-March 1.—The University of Texas Postgraduate School of Medicine will offer this course, to cover present day concepts and management of rheumatic diseases, with Drs. Joseph Bunim, Bethesda, Md.; Richard Freyberg, New York; and William P. Holbrook, Tucson, Ariz., as guest lecturers, assisted by members of the Postgraduate School faculty. Tuition fee of $40 and application for admission should be mailed to the Postgraduate School, Texas Medical Center, Houston 25, before February 18.

Medicine and Surgery, March 4-6, Temple.—The Temple Division of the University of Texas Postgraduate School of Medicine will offer the fifth Scott, Sherwood, and Brindley Foundation Postgraduate Conference, and detailed information is available from the director of the foundation, Scott and White Clinic, Temple.

Mediclinics, March 4-14, Fort Lauderdale, Fla.—The Florida Academy of General Practice is the local sponsor of the course, which consists of 32 hours of lectures and panels conducted by a faculty of experts. Nearly all phases of medicine will be covered, and a complete list of the times and subjects for all courses is available by writing Mediclinics, 516 Medical Arts Building, Minneapolis 2. Registration will be limited to 300 in order to preserve an informal atmosphere in the lecture rooms. Tuition is $50.

Fractures, April 10-13, Chicago.—This three and one-half day course will be offered to all members of the medical profession by the Chicago Regional Committee on Trauma of the American College of Surgeons. Clinical cases will be presented, and discussions and questions from the audience will be invited. Complete details on this course may be obtained by writing Dr. John J. Fahey, 1791 West Howard, Chicago.

Crash Studies to Be Reviewed

A review of the Cornell University automotive crash injury studies, including those in Texas, will be held February 14, when John O. Moore, director of research, and Robert M. Tracy, field supervisor of the project, will meet in Austin with representatives of the Texas Medical Association, State Department of Health, Texas Department of Public Safety, and others interested in the program.

A group of key persons in the Texas program will have luncheon together, and then an open meeting will permit a larger audience to hear up-to-date information about the research. Mr. Moore will show a recently produced motion picture in which the American Medical Association and the Ford Motor Company collaborated to show something of the automotive crash research and the results in new safety devices on late model cars. He also will discuss speed and impact studies, and charts contained in a "Primer of Accident Facts," which will be released in the near future.

The Texas Safety Association is taking this opportunity to present safety awards to the Texas Medical Association, the Texas State Department of Health, and the Department of Public Safety for their part in the research program. For approximately a year, McLennan, Smith, and Travis County physicians, state police, and health officers collected data on accidents in their areas for statistical processing at Cornell University Medical College, New York, and last November 1 the study areas were moved to Lubbock, Nueces, and Wichita Counties.

March of Dimes

Every January since the National Foundation for Infantile Paralysis was established, the people of the United States have supported the battle against poliomyelitis through the organization's fund raising arm, the March of Dimes.

MARCH OF DIMES

FIGHT INFANTILE PARALYSIS

JANUARY 2-31

This support has resulted in Salk vaccine protection for many millions of children and treatment for hundreds of thousands of others who could not benefit from the vaccine, the foundation points out.

During 1956, nearly 16,000 persons were struck down by poliomyelitis; this was the lowest number recorded since 1947. Although the reductions due to the use of Salk vaccine were gratifying, poliomyelitis proved that it still packed a deadly punch.

Of the 44,000,000 persons who have received vaccine, only 7,000,000 have completed the full course of three inoculations. In September, it was estimated that enough vaccine was on hand or in production to supply the entire three-shot series for 97,000,000 persons.

During 1956, the National Foundation provided $23,000,000 for patient aid, $2,000,000 for respirator and rehabilitation centers, $3,300,000 for scientific research, and $2,800,000 for a professional education program.

The March of Dimes still has work to do—many children and adults need special treatment, and protective and therapeutic techniques must be improved. Contributions to the March of Dimes are tax deductible, and may be made to local chapters of the foundation.

MARKLE FUND

The Markle Foundation has announced that it will continue for the tenth year its program of five year grants for young medical school faculty members seeking careers in academic medicine. During the nine years of the program, a total of $5,320,000 has been appropriated toward the support of 181 doctors in 69 medical schools in the United States and Canada. The foundation was established in 1927 by John Markle, a Pennsylvania coal operator, and grants for scholars in medical science are now the major program of the fund.

MEMORIAL LIBRARY

Memorial Library Honors Benefactors In Milestone Ceremony

The Memorial Library of the Texas Medical Association is taking its place among the large medical libraries this month, when volumes number 25,000 and 25,001 are presented in a special ceremony. The event is being held in Austin Saturday afternoon, January 26, at which time the Board of Trustees will formally honor the benefactors in the growth and development of the Library.

But the Library staff is well aware that a large number of volumes alone does not make the Library valuable for the physicians of Texas. More than 600 medical journals from all over the world are currently being received, and more than 200 films are available for loan. In 1956 alone, the number of reprints, journals, and books circulated by the Library exceeded 18,000, and the number of films loaned that year passed 700. There was a record high reference request of 2,400 this past year, which represented greater than a 100 per cent increase since 1953, doctors in more than 200 counties in the state use the Library services.

Since the Texas Medical Association moved into its own building in Austin (September, 1952) with adequate facilities for a library, the Memorial Library has developed more than in its entire existence before. In the past four years, 15,000 volumes have been catalogued. Volumes in the Library stacks cover a period of almost 500 years of printing, with the earliest volume printed in 1528. Many complete series of journals may be found in the Library, including the *American Journal of Medical Sciences* from the first volume in 1828 to the present and the *Practitioner* from its beginning in 1869 to date.

The Library's growth cannot be attributed to any one person or group of persons. Credit is due to the many people, physicians and laymen alike, who have generously supported the Library.

Ceremony Honors Benefactors

Among those contributions of $1,000 or more to be recognized during the ceremony are:

Dr. and Mrs. Sam E. Thompson Memorial Fund, established by Dr. and Mrs. Sam E. Thompson of Kerrville in 1940.

Warner E. Williams Memorial Fund, established by Dr. and Mrs. E. W. Bertner of Houston in 1940, in memory of Mrs. Bertner's father.

Texas Pediatric Society Library Endowment Fund, established by the Texas Pediatric Society in 1940.

Hattie Preston Hunt Memorial Fund, established by Dr. Preston Hunt of Texarkana in 1941, in memory of Mrs. Hunt.

Dr. and Mrs. N. D. Buie Fund, established by Dr. and Mrs. N. D. Buie of Marlin in 1942.

Mr. and Mrs. William Thomas Carter Memorial Fund, established by Dr. and Mrs. Judson L. Taylor of Houston in 1943, in memory of Mrs. Taylor's parents.

Dr. Martin Junius Taylor Fund, established by Dr. and Mrs. Judson L. Taylor of Houston in 1943, in tribute to Dr. Taylor's brother.

Romayne Ray Memorial Fund, established by Mr. and Mrs. G. A. Ray of Pettus in 1944, in memory of their daughter.

Presidents' Library Endowment Fund, established by the Past Presidents and President of the Woman's Auxiliary to the Texas Medical Association in 1944.

Inez Anthony Hudgins Endowment Fund, established by Dr. D. H. Hudgins of Forney in 1945, in honor of his daughter.

County Medical Society Library Endowment Fund, established in 1945.

Dr. Stirling E. Russ Memorial Fund, established by Dr. and Mrs. W. B. Russ of San Antonio in 1946, in memory of their son.

Mary Carter Owens and Mattie Hanes Brindley Memorial Fund, established by Dr. and Mrs. G. V. Brindley in 1950, in memory of their mothers.

Dr. and Mrs. V. R. Hurst Fund, established by Dr. and Mrs. V. R. Hurst of Longview in 1951.

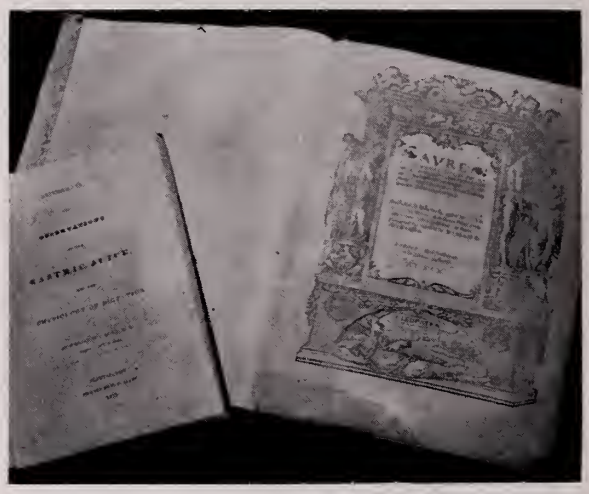
Dr. and Mrs. J. C. Terrell Fund, established by Dr. and Mrs. J. C. Terrell of Stephenville in 1951.

Woman's Auxiliary Endowment Fund, established by the Woman's Auxiliary to the Texas Medical Association in 1951.

G. A. Ray Memorial Fund, established by Dorothy Ray Lewis, sister of Mrs. S. F. Harrington of Dallas, in 1953, in memory of their father.

Dr. S. N. Key, Sr. Memorial Fund, established by the Ophthalmic Research Foundation of Austin in 1956.

Dr. Milford O. Rouse of Dallas, President of the Texas Medical Association will preside over the special ceremony honoring the Library's benefactors. The contributors of



Title pages of two rare books to be presented to the Memorial Library of the Texas Medical Association at special ceremonies in Austin on January 26. A first edition of William Beaumont's "Experiments and Observations on the Gastric Juice, and the Physiology of Digestion," 1833, is at the left; "De Re Medicus" of Cornelius Celsus, 1528-1529, is at the right.

the large gifts previously mentioned will be introduced by Dr. R. W. Kimbro of Cleburne, chairman of the Association's Board of Trustees. Mrs. Richard C. Bellamy of Liberty, President of the Woman's Auxiliary to the Texas Medical Association, will present the two rare books—volume number 25,000, "De Re Medicus" of Cornelius Celsus,

dated 1528 and 1529, in honor of the late Dr. Sam E. Thompson of Kerrville, who was a President of the Association and a chairman of the Board of Trustees; and volume number 25,001, "Experiments and Observations on the Gastric Juice, and the Physiology of Digestion" by William Beaumont, dated 1833, in memory of the late Dr. Sam N. Key, Sr., who was a member of the Board of Trustees of the Association and chairman of its building committee. Reviews of these two books are published in the December issue of the *Journal.*

Development of Library

Although the Memorial Library has grown rapidly during the past four years to reach its present status, its story prior to that time is indeed different. In fact, once the Association's library was given to the Fort Worth Medical College, which later merged with Baylor University College of Medicine. In the early 1920's the Association again started to build a library. The Board of Trustees appropriated $500 in 1924-1925 for the library, not even half of which ($168.23) was reported by the auditors in 1926 as having been used for library expenditures. The following year Dr. R. B. Anderson was employed as assistant secretary of the Association, and from then on the library began developing more steadily, along the lines of the American Medical Association Library in Chicago, where he spent several days studying its organization and operation.

The Texas Memorial Medical Library Association was formed on May 13, 1940, to exist for a period of 50 years to accept tax-free gifts for the support of the Library. Membership in the association was limited to the members of the Board of Trustees of Texas Medical Association. That year three endowment funds of $1,000 each were established, and since that time more than a dozen other endowments of $1,000 have been given to the Library.

After the death of Dr. Anderson in 1947, Dr. Holman Taylor, who had been secretary of the Association for many years and had had an interest in a library throughout his administration, became librarian. Dr. Taylor served as librarian until his death less than a year later, at which time Mrs. Estelle Parnell was promoted to librarian, a position which she held for two years. Then Mrs. Katheryn Wendler, assistant librarian, was in charge of the Library until 1952, when the first trained medical librarian, Miss Pauline Duffield, joined the staff. The Library since that time has consisted of four full-time employees and one part-time employee.

The Library staff answers promptly—usually the same day—requests for material on any medical subject from doctors throughout the state; and books, reprints, and journals are loaned free of charge, as are motion picture films, which are designed for both medical and lay audiences. It is hoped the Library's Rare Books Room eventually will become a shrine for those interested in medical history, and a growing collection of rare books and medical memorabilia which have been donated to the Library may be found there now. Any member of the Association is welcome to visit the Library and brouse through its stacks, and all physicians are urged by the staff to avail themselves of the Library's services.

The importance of a library for the physicians of the state was recognized by the authors of the Association's first constitution in 1853, for one of the purposes found in Article I is "to extend medical knowledge and advance medical science." The greatest impetus for the development of the Memorial Library to help fulfill this purpose was furnished by Dr. Sam E. Thompson, who gave encouragement and financial support during his lifetime and left $50,000 in his will for Library accessions. Another physician greatly responsible for the fulfillment of this purpose was Dr. Sam N. Key, Sr., who gained the concept of the necessity for a trained medical librarian and who carried a major portion of the responsibility during the construction and furnishing of the Association's headquarters and Library building.

An official group of physicians also played an important part in the development of the Library, for these men worked "to secure donations and endowment funds for the Texas Memorial Medical Library Association, and to keep the membership of the Association acquainted with the services offered by the Library to members and the public, and its needs for continuous greater development and greater services." This group was the Association's Committee on Library Endowment.

Under the presidency of Dr. L. H. Reeves of Fort Worth, the first library committee was appointed in 1940 for the solicitation of funds for the support of a medical library, and Dr. Sam E. Thompson was named chairman. In 1943 with Dr. Reeves as chairman, the Committee wrote each county medical society in the state setting forth the valuable services being rendered by the Library to the doctors of Texas and the great need for endowment funds. As a result of this drive and the continued efforts of the committee under the chairmanship of Dr. B. E. Pickett, Sr. of Carrizo Springs, the County Medical Society Library Endowment Fund was established in 1945, with donations totaling $1,543.

The Committee on Library Endowment functioned as a standing committee of the Association from 1946 to 1956, when it requested its dissolution because it felt its job had been done. Nevertheless, the committee believed that physicians increasingly would find the services of their Library invaluable and should recognize the continuing need for supporting it with further endowment funds.

Gifts to the Library

Dr. L. G. Burton, Woodville, 128 unbound journals; 5 bound journals.

Dr. Harry T. Davidson, Austin, 29 journals.

Dr. J. E. Johnson, Austin, 10 books; 15 reprints; 16 journals.

Dr. S. N. Key, Jr., Austin, 1 book; 17 journals.

Mrs. George S. Littell, Dallas, 6 books.

Dr. Dean Nichols, Temple, 189 journals; 1 book.

Dr. H. O. Padgett, Marshall, 28 journals.

Dr. A. D. Pattillo, Austin, 19 journals.

Dr. Jerome O. Ravel, Austin, 17 books; 40 journals.

Dr. Harold L. Robinson, Austin, 15 bound journals; 55 unbound journals; 1 book.

Dr. B. O. White, Austin, 39 journals.

★ Motion Pictures

The Case of the Doubting Doctor

16 mm., sound, color, 30 min., 1956.

A newspaper editor, golfing with three local physicians, discovers an interesting story while listening to a debate on the merits of the American Medical Association and medical societies. The "doubting" doctor, prompted by a bet, sets out to prove his criticisms. Instead, he finds himself taking his first good look at AMA activities which benefit both the physician and the public. Emphasis is placed not only upon AMA's activities, but also upon the activities of the state and county medical societies.

Unconditional Surrender

Sound, black and white, 14 min., 16 mm.

Laboratory scenes of the complete manufacturing process and testing of the Salk vaccine are shown. This film has been cleared for television.

On Impact

Sound, black and white, 16 mm.

Filmed for the American Medical Association and the Ford Motor Company, this documentary film shows how the medical profession and the automobile industry are cooperating to work out the new approach to highway safety. It contains a report from the Automobile Crash Research Project at Cornell University Medical College on the effectiveness of five new automobile safety devices which were introduced for the first time in 1955.

★ Books

Should the Patient Know the Truth

SAMUEL STANDARD, M. D., *and* HELMUTH NATHAN, M. D., Eds. *159 pages. $3. New York, Springer Publishing Company, Inc., 1955.*

Twenty-three prominent persons in the fields of medicine, nursing, law, and religion present their opinions concerning whether or not a patient with an incurable disease should be told the exact nature of his condition. As might be expected, the opinions are as varied as the professions. There could, of course, be no pat answer to such a question, though some of the authors have very positive feelings about the matter.

Dr. Owen Wangensteen, for example, writes that the surgeon should refrain from deceiving the cancer patient. He feels that in most cases, sooner or later, the victim learns the truth and resents the fact that he has been deceived by his doctor. Dr. Wangensteen also advocates the "second look" for patients who have had cancer surgery. The "second look" is an additional operation following the primary procedure by several months, the purpose being to seek out metastasis which might not have been resected in the first procedure. He brings this in to support his idea that advances are being made constantly in the fight against malignancy and that the patient with cancer should have hope until death that something might be found which will benefit him.

John A. Goodwine, a distinguished Catholic, feels also that the patient who is Catholic must be told that he is about to die, so that he may prepare himself for passing into eternity. He then is given an opportunity to mold and solidify his friendship with God by receiving the Last Sacrament of his church.

Rabbi Louis I. Newman quotes the Midrash (The Holy Law of Jewish tradition):

> "Even when the physician sees that death is approaching, he still says to the patient: "Eat this and abstain from that; drink this and not that"; but he does not say "Your end is near," and he rebukes the prophet Isaiah in the name of the King Hezekiah for telling him bluntly, "Set thy house in order for thou shalt die and not live." (II Kings 20:1.)

Dr. Paul D. White encourages optimism when discussing a patient's condition. He feels that we should concentrate strongly on the beneficial things that can be done for a patient in relieving his symptoms. Hope for a cure should be illuminated, for optimism itself is a valuable tool if it can be instilled in the desperately ill.

—W. B. Neely, M. D., Bellville.

Histamine; Its Role in Anaphylaxis and Allergy

M. ROCHA E. SILVA, M.D., *Department of Biochemistry and Pharmacodynamics, Instituto Biologico, Sao Paulo, Brazil. 248 pages. $7.50. Springfield, Ill., Charles C Thomas, 1955.*

This monograph covers the subject of histamine very thoroughly. Synthesis, isolation, chemical and physical properties, pharmacology, and methods of extraction from tissue and body fluids are discussed at length. The liberation of histamine in different laboratory animals and the theories on the liberation of histamine in the human being are dealt with adequately. Histamine formation, destruction, and excretion are treated at length. A chapter on antihistaminic activity and another discussing sensitization diseases in relation to histamine and antihistaminics are excellent.

This monograph is particularly recommended to all allergists and immunologists.

—V. E. Friedewald, M. D., Big Spring.

The Relief of Symptoms

WALTER MODELL, M.D., F.A.C.P., *Associate Professor, Clinical Pharmacology, Cornell University Medical College. 450 pages. Philadelphia, W. B. Saunders Company, 1955.*

This is an easily read, repetitious book which devotes the first five chapters and the preface to the theory of need for relief of symptoms, which bring all patients to the doctor. "A scientific approach to medicine is no way inconsistent with an active concern over symptoms" is the author's justification for stressing treatment of all symptoms instead of treating the disease per se.

Part 2 is composed of 24 chapters of separate and distinct symptoms, including pain, anxiety, insomnia, gas, constipation, diarrhea, cough, fever, weakness and fatigue, nausea and vomiting, and jaundice. These are discussed with evaluation of numerous drugs used to relieve these symptoms.

The third part of the book is as an appendix, under the heading of "Counsel," which condemns the use of cortisone and ACTH except in the incurable diseases or an acute disease which is in the terminal stage with no other hope of reversing the fatal outcome.

This book is interesting reading, but especially recommended for the medical student in his last two years, interns, residents, or the young practitioner.

—Herbert H. Duke, M. D., Baytown.

Hernia

CHESTER B. MCVAY, M. D., Ph.D., *Clinical Professor of Surgery and Associate Professor of Anatomy, University of South Dakota School of Medical Sciences; Surgeon, Yankton Clinic, Yankton, S. D. 40 pages. $4.75. Springfield, Ill., Charles C Thomas, 1954.*

No Smoking: A Sign of the Times

ROBERT P. INGRAHAM. *58 pages. $2. San Antonio, The Naylor Company, 1955.*

ORGANIZATION SECTION

★ Texas Medical Association

Medicare Program Now In Force in Texas

Representatives of the Texas Medical Association and the Department of Defense reached an agreement in mid-December and a contract has been signed putting into effect the Medicare program for dependents of military personnel. The program in Texas is retroactive to December 7, when the national law became effective. Members of the Association have received through the mail details of the program and procedures to be followed under it.

When Congress passed Public Law 569 early in 1956, it set the wheels rolling on a plan to offer 2,000,000 dependents of military personnel medical and hospital care at government expense, much of it by private physicians and civilian hospitals, and $41,000,000 was earmarked to operate the program through June 30, 1957.

The House of Delegates of the Texas Medical Association, meeting in special session in Austin on September 9, while disclaiming approval of the legislation, voted to enter into an agreement with the Department of Defense to take part in the program for a period of up to one year and authorized the Board of Trustees to act as the negotiating agent. After consultation with the Council on Medical Economics and preparation of a tentative schedule of allowable maximum fees based on a statewide fee survey last summer and on the advice of officers of 32 specialty groups, the Trustees entered into a discussion with the Department of Defense that extended over a period of a month. The Trustees urged careful consideration of the proposed fee schedule, the request of the Texas Medical Association that Blue Shield of Texas be the fiscal administrator for medical payments, and the desire of hospitals that Blue Cross might be designated as their fiscal administrator. Before Texas signed a contract, among the last of the states to do so, a fee schedule which the Trustees consider satisfactory was agreed to and Blue Shield was named as fiscal administrator for payments to physicians; Blue Cross was not approved as fiscal administrator for the hospitals, Mutual of Omaha being named instead.

A doctor who wishes to accept patients under the Medicare program (and participation is voluntary) may identify eligible military dependents by their post exchange card, combined post exchange-commissary-military care card, or standard military dependent identification card. After July 1, a special Medicare card will be the only identification allowed. A statement for professional services reported on D.A. Form 1863 (supplies have been mailed to doctors and additional copies may be obtained from Blue Shield) should be sent in duplicate, with a third copy being retained in the doctor's office, to Military Medicare Section, Blue Shield, 2208 Main Street, Dallas. These instructions apply to all service under the program given on or since December 7.

Blue Shield will process all claims for the doctor, make payment to him, and be reimbursed by the Department of Defense. Blue Shield is serving in this capacity with no compensation other than the actual cost of administration, which will be paid by the government.

Medicare is designed to pay the physician his customary fee within the prevailing fee structure of his community or the fee allowed on the schedule agreed to for the Texas Medical Association, whichever is smaller. It is expected that such payment will cover the entire professional charge; should the physician believe that a greater allowance is justified, he may submit a special report for forwarding to the government, but he is not supposed to submit an additional bill to his patient.

Among the types of service which eligible dependents may obtain through the government program from private physicians are care of acute medical conditions, surgical conditions, contagious diseases while the patient is in the hospital, acute injuries and emergencies, obstetrical and maternity care, and diagnostic tests and procedures during hospitalization. There is no authorization for payments for drugs, medicinals, or other medical supplies except those furnished during hospitalization or administered directly by a physician. Semiprivate accommodations in a hospital up to 365 days for each admission are allowed. For hospital service, the patient will pay the first $25 or $1.75 per day, whichever is larger, and if the physician considers that a private room or private duty nursing care is required, a portion of the cost will be assessed against the patient. There are certain other restrictions and special allowances that the physician should note in the manual he has received.

Highlights of Annual Session Section and Specialty Programs

This month tentative programs are being completed for the nine scientific sections of the Texas Medical Association and the various specialty societies meeting during the annual session next spring in Dallas. Guest speakers, symposiums, and panel discussions are considered by the officers planning the programs as the highlights of most of them.

All of the scientific sections meet on Monday and Tuesday afternoons, April 29-30, whereas the specialty society meeting times vary, beginning on Saturday, April 27. Sessions of the societies are open to all members of the Texas Medical Association.

The Section on General Practice is featuring several guest speakers: Dr. George J. Thomas, who will speak on "Fire and Explosive Hazards in Hospitals and Their Control"; Dr. John R. Hill, "Abscesses and Sinuses in the Anorectal Region: Differential Diagnosis and Treatment"; Dr. Robert W. Virtue, "Emergencies in Anesthesia: Let's Stress Prevention"; and Dr. A. D. Ruedemann, Sr., "Some Ophthalmic Conditions of Interest to General Practitioners and Pediatricians."

Emphasis of the Section on Internal Medicine program will be on nontuberculous pulmonary disease. A panel discussion will be presented on the topic, with the section's guest, Dr. John Hickam from Durham, N. C., an authority on the subject, participating along with several distinguished Texas physicians.

An innovation on the Section on Surgery program will be round-table discussions each afternoon with guest speakers and outstanding Texas surgeons presenting broad surgical topics. Several guest speakers will present current material on pertinent subjects, the officers point out.

The guest of the Section on Obstetrics and Gynecology, Dr. Roger B. Scott of Cleveland, will participate in the section's panel discussions on "Bleeding in the First Trimester of Pregnancy" and "Carcinoma of the Cervix."

Dr. Arthur C. Jones of Boise, Idaho, will be the feature speaker on the Monday afternoon session of the Section on Eye, Ear, Nose, and Throat, which will be devoted to ear, nose, and throat topics. For the first time, a full day of eye

subjects will be presented on Tuesday in collaboration with the Texas Ophthalmological Association. Dr. Hugh L. Ormsby, a Toronto ophthalmologist, will speak, as will Dr. Ruedemann of Detroit. Dr. Ruedemann will bring out the relationships between ophthalmologists and optometrists.

The Section on Radiology program will be divided into diagnostic and therapy sessions, with Dr. Richard H. Chamberlain of Philadelphia as the key speaker. His talk for the section is on "Achievements and Deficiencies in the Management of Thyrotoxicosis with Radioactive Iodine."

Following a joint luncheon with the Texas Geriatrics Society, at which Dr. H. B. Mulholland of Charlottesville, Va., will discuss "Medical Aspects of Aging and Long-Term Illness," the Section on Public Health will meet Tuesday afternoon and will hear a talk by Dr. Wilson G. Smillie of New York. A dinner session has been planned for Sunday evening by the Texas Chapter of the American Association of Public Health Physicians, with Dr. Smillie as guest. The group's officers report that in true Texas tradition, the 46 Texas members compose the largest state chapter in the nation. Dr. Smillie, a joint guest of the Section on Public Health and the Conference of City and County Health Officers, also will address those attending the conference on Monday afternoon, as will Dr. C. A. Pigford of Lubbock, Dr. Robert E. Engles of Austin, and Dr. Fred K. Laurentz of Houston.

Guest speakers from throughout the nation will spark the various parts of the program for the Texas Medical Association annual session in Dallas. Guests will participate in more than 20 scientific section and specialty society meetings, as well as general meetings and refresher courses.

Television microscopy is planned as the feature of the Section on Clinical Pathology program, and two special speakers are of particular interest, the officers point out. Dr. John R. Schenken of Omaha, a guest jointly of the section and the Texas Division of the American Cancer Society, will discuss tumors of the salivary gland; and Dr. Howard C. Hopps, who recently has become associated with the University of Texas Medical Branch, Galveston, will speak on the pathogenesis of hepatic cirrhosis. Following the section meeting, the Texas Society of Pathologists will hold a brief business session.

A symposium on accidents and poisonings in children will highlight the Section on Pediatrics session with the Texas Chapter of the American Academy of Pediatrics cooperating. Pediatricians also will hear talks by Dr. Reynold A. Jensen of Minneapolis and Dr. Wolf Zuelzer of Detroit. Of special significance is the fact that the Texas Pediatric Society is jointly sponsoring one of these guests with the Texas Neuropsychiatric Association.

Dr. Thomas H. Burford, professor of surgery at Washington University School of Medicine, St. Louis, is the guest of the Texas Chapter, American College of Chest Physicians. He will talk on surgical diseases of the chest in children.

The head of the Section on Dermatology and Syphilology at Mayo Clinic, Rochester, Minn., Dr. Louis A. Brunsting, will discuss "The Use and Misuse of Steroids in Dermatology" for the Texas Dermatological Society.

The Texas Diabetes Association will present a one day session with a luncheon panel covering up-to-date concepts of the physiology and treatment of diabetes and its complications, designed for the general practitioner and specialist alike. The president of the American Diabetes Association, Dr. Frederick W. Williams of New York, will be the principal speaker.

The American Medical Association's Committee on Aging will sponsor a regional conference on aging in Dallas on Saturday and Sunday prior to the meeting of the Texas Geriatrics Society on Tuesday. The society's guest, Dr. Mulholland, is chairman of this committee and called the meeting, which is expected to attract about 50 physicians from the southwest territory interested in the problems of aging.

The Texas Heart Association will have as its principal speaker, Dr. Laurence B. Ellis, associate clinical professor of medicine at Harvard Medical School, Boston.

A field trip to Chance Vought Aircraft Division of the United Aircraft Corporation in the Dallas area to inspect the various health hazards and processes used will highlight the meeting of the Texas Industrial Medical Association, and buses will take the doctors on this conducted tour.

Dr. D. Ewen Cameron of Montreal, Canada, will discuss the modern department of psychiatry in the general hospital for the Texas Neuropsychiatric Association, and several other guests will participate in the program.

Scientific papers, including a talk by H. Relton McCarroll of St. Louis, will be given at a Monday morning session of the Texas Orthopedic Association. Luncheon and a business session will be followed by presentation of cases and a panel discussion at Southwestern Medical School of the University of Texas, with the panel moderated by Dr. Charles C. Gregory, Dallas.

Aspects of hypothermic techniques as they apply to open heart surgery and to neurosurgery will be discussed by the guest of the Texas Society of Anesthesiologists, Dr. Robert W. Virtue of Denver. It will include physiological considerations of congenital heart disease problems which are candidates for anesthesia and surgery.

Another member of the Mayo Clinic staff, Dr. John R. Hill, will discuss ulceration of the terminal portion of the colon for the Texas Society of Gastroenterologists and Proctologists.

"The Care of Patients with Multiple Injuries" by Dr. Preston A. Wade of New York will be presented for the Texas Traumatic Surgical Society on Sunday afternoon. The society also will have a cocktail reception featuring informal round-table discussions on professional subjects and for the doctors' wives on nonprofessional subjects.

Also meeting in Dallas in conjunction with the annual session are the Society of Life Insurance Medical Directors of Texas, which will have its annual business meeting with an election of officers at a luncheon on Tuesday; the Fourth District of the Texas Chapter of the American College of Surgeons on Saturday, which is composed of an afternoon scientific session (any fellow of the American College of Surgeons and his guests are invited) and an evening session of cocktails and dinner for the doctors and their wives; the Texas Air-Medics Association; and the Texas Society of Plastic Surgeons.

Alumni, Fraternity Groups Plan Dallas Meetings

Alumni associations and medical fraternities will meet during the 1957 annual session of the Texas Medical Association in Dallas; alumni meetings will begin at 6:30 p. m. Monday, April 29, and fraternity parties will be held from 6 until 8 p. m. Tuesday, thus allowing participants to attend the President's party the same evening.

The University of Tennessee Alumni of Texas have planned a banquet, to be preceded by cocktails; a discussion of new developments at the University of Tennessee College of Medicine, including the showing of slides of new buildings and equipment there; a business meeting; and a brief address by F. June Montgomery, executive secretary of the Memphis center alumni.

University of Texas Medical Branch alumni will be treated to a special performance of the floor show from the Statler-Hilton Hotel; no other specific program has been planned as yet.

A complete list of groups meeting with the Texas Medical Association will be published in the March issue of the *Journal.*

Committee Meetings Scheduled For Executive Council Week End

Included in the activities of the January 25-27 Executive Council week end will be meetings of numerous boards, councils, and committees of the Texas Medical Association. Unless otherwise indicated, the meetings will be held in the Association's headquarters building, 1801 North Lamar Boulevard, Austin. The following had been scheduled by publication deadline:

FRIDAY, JANUARY 25

8:00 p. m.—Committee on Public Relations.
6:00 p. m.—Board of Trustees.

SATURDAY, JANUARY, 26

8:30 a. m.—Council on Medical Jurisprudence.
9:00 a. m.—Committee on Bracero Insurance.
10:30 a. m.—Council on Medical Defense.
1:00 p. m.—Council on Medical Education and Hospitals.
1:00 p. m.—Committee on Blood Banks.
1:30 p. m.—Committee to Study Liaison with the State Bar of Texas (to meet in headquarters building of the State Bar, 201 W. 15).
2:00 p. m.—Board of Councilors.
2:00 p. m.—Council on Medical Economics.
2:00 p. m.—Committee on Mental Health.
2:00 p. m.—Committee on Problems of the Aging.
2:00 p. m.—Committee on School-Physician Relationships.
2:00 p. m.—Committee on Tuberculosis.
2:15 p. m.—Committee on Cardiovascular Disease.
7:30 p. m.—Committee on National Emergency Medical Service.
7:30 p. m.—Committee on Public Health.
8:00 p. m.—Committee on Scientific Exhibits.
8:00 p. m.—Committee on Cancer (to meet at Driskill Hotel).
8:00 p. m.—Committee on Rural Health and Doctor Distribution.

SUNDAY, JANUARY 27

7:00 a. m.—AMA Delegates (to meet at Driskill Hotel).
9:00 a. m.—Committee to Study Liaison with the State Bar of Texas.

The Council on Scientific Work was to meet January 13.

Other events to be held during the week end are the first indoctrination program for new members; the Conference of County Medical Society Officials and Symposium on Legislation, including as guest speakers C. Joseph Stetler of Chicago, the Hon. Olin Teague of Bryan, and Mrs. Mary D. Cain of Summit, Miss.; and a special ceremony for the Memorial Library. Detailed programs were in the December *Journal.*

The Executive Council will be in session on Sunday morning, January 27.

COMMITTEE CHANGES ANNOUNCED

Additional changes in the committee list of the Texas Medical Association have taken place as follows:

Dr. William M. Crawford, Fort Worth, resigned as chairman and a member of the Committee on Public Relations, November 12, 1956.

Dr. Elliott Mendenhall, Dallas, was named November 30, 1956, as an Appointee to the Advisory Committee to Texas State Hospitals and Special Schools, his special interest being in tuberculosis.

Dr. Tom Bond, Fort Worth, has been made chairman of the Committee to Study Health Costs. Dr. Russell L. Deter, El Paso, was named December 26, 1956, to the vacancy on the committee caused by the resignation from the committee of the former chairman, Dr. Marvin C. Overton, Jr., Pampa.

★ County Societies

School-Physician Relations Studied

Areas of discontent and misunderstanding are the product of the failure of medical and school men to confer, Dr. Jay J. Johns, Taylor, told members of *Williamson County Medical Society* and guests at a November meeting. Dr. Johns is chairman of the Texas Medical Association's Committee on School-Physician Relationships.

Representatives from 11 surrounding towns were present, and they included school administrators, doctors, education board members, physical training directors, members of the county health unit, nurses, and members of the Parent-Teacher Association. A panel of doctors and educators discussed several aspects of school health including immunizations, athletic programs, first aid courses, body mechanics needs, lunch programs, mental health, and special helps for exceptional children.

Poison Control Center Established

A center to provide the medical profession with information about product composition and antidote measures for cases of accidental poisoning opened January 2 in the Brackenridge Hospital Emergency Room, Austin, under sponsorship of the Austin Poison Control group, members of which come from the medical, chemical, pharmacy, nursing, hospital, medical assistants, and related fields. The Travis County Medical Society has approved the project, the services of which will be available only to physicians.

Eventually a card file giving information on household

products and drugs will be included in the center; at first a collection of textbooks will provide information on approximately 2,500 common drugs and household products. If the physician wishes, information not on file will be obtained by telephone by center personnel, the cost being borne by the patient. Materials and equipment for therapeutic measures will be available in the emergency room, and interns and nurses will be trained to assist in the use of the information file and equipment. Certain toxicological analyses are being developed in the hospital laboratory, and the facilities of the Department of Public Safety and the Department of Public Health will be available if required.

The Poison Control Group meets monthly and is open to interested physicians. It hopes to carry on a public educational program to alert parents to the toxic dangers of common household products.

Police Ask Help In Identifying Conditions

The chief of the Fort Worth police department recently asked members of the *Tarrant County Medical Society* to help train members of the police force in differentiating between alcoholic intoxication, epileptic convulsions, diabetic coma, and vascular accident. It was suggested that a tape recording be made giving various characteristics of each condition, and other ideas for presentation of this material were requested.

Doctors Help Plan Sewage Disposal

A committee of the *Tom Green-Eight County Medical Society* has been appointed to study the possibilities of obtaining a complete sewage disposal unit for the city of San Angelo. It was felt by some that the method of disposal being contemplated by the city commission might become a public health menace in the event of any unusually heavy rainfall in the area. The committee, which consists of six physicians who have had experience in sewage disposal problems, was to give the matter careful study and make concrete recommendations to the city commission as to a type of unit which would be safe under the most possible conditions.

Programs

Recent county society programs have included:

Bexar County Society.—"Medical Hypnosis," Dr. Neville Murray, San Antonio.

Brazoria County Society.—"True Group Insurance Plan," Reed Giese, Austin.

Cameron-Willacy Counties Society.—"Medical Economics Problems and the Business Side of Medical Practice," Dr. Everett C. Fox, Dallas; and "The Private Practice of Medicine and Its Future," C. Lincoln Williston, Austin.

Hardeman-Cottle-Foard-Motley Counties Society.—"Surgical Aspects of Peptic Ulcer," Dr. Samuel G. Dunn, Lubbock.

Hill County Society.—"Ectopic and Extra-Uterine Pregnancies," Dr. Malcolm MacRae, Waco.

Tarrant County Society.—"Hydatidiform Mole," panel discussion, Drs. Dalton C. Hartnett, James G. Stouffer, O. J. Wollenman, and T. U. Taylor, all of Fort Worth; "Aspects of Endocrinology," Dr. Dewey Johnston, Fort Worth; "The Chronically Discharging Ear," Dr. William C. Hendrix, Fort Worth; and "Review of Legislation," Senator Doyle Willis and Representatives Jim Moore and Howard Green, all of Fort Worth.

Tom Green-Eight County Society.—"Clinical Diagnosis of Vascular Diseases and Surgical Aspects of Treatment," Drs. Robert Franken and Raymond G. Boster, San Angelo; "Diabetic Uropathies," Dr. Albert B. Peyton, San Angelo.

★ American Medical Association

Film Shows Presentation of Medical Testimony

"The Medical Witness," the first in a series of educational films dealing with the professional relationships of doctors and lawyers, depicts the right and wrong methods of presenting medical testimony by reenacting the trial of a personal injury case. It will be shown at the Texas Medical Association Memorial Library January 26 during the Symposium on Legislation and Conference of County Society Officials. This film, prepared jointly by the American Bar Association and the American Medical Association, is available through the AMA.

WOMAN'S AUXILIARY

Science Fairs Evolve From Youngsters' Disinterest

Why should the medical profession exert itself in the field of education by promoting science fairs?

A well known radio and television news commentator questioned high school students in a southwestern metropolitan community about their plans for the future. His wrath was righteous in reporting his findings. The majority expressed desire for wealth by the quickest and easiest means. Their attitude toward science was one of disdain. Scientists and scholars were "squares" who went around in "smelly sweat shirts and tennis shoes" and had no knowledge of or interest in clothes and fast cars. All in all the comments of the group were frightening if one thinks of the future.

Reports such as this, along with statistics proving how many high schools had neither physics nor chemistry courses, and how the number of science and engineering graduates had decreased, gave rise to a demand for action to dramatize scientific pursuits and attract more youngsters at the lower levels of learning. Big industry went to work, and showmanship which would have done justice to P. T. Barnum glorified the secrets of science. Handsome young college

Officers of the Woman's Auxiliary to the Texas Medical Association for 1956-1957: President, Mrs. Richard C. Bellamy, Liberty; President-Elect, Mrs. H. S. Renshaw, Fort Worth; First Vice-President, Mrs. Harold Lindley, Pecos; Second Vice-President, Mrs. Ramsay H. Moore, Dallas; Third Vice-President, Mrs. William D. Nicholson, Freeport; Fourth Vice-President, Mrs. Lynn Hilbun, Henderson; Fifth Vice-President, Mrs. R. B. G. Cowper, Big Spring; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. J. L. Jinkins, Galveston; Corresponding Secretary, Mrs. E. R. Richter, Dayton; Publicity Secretary, Mrs. Joe Thorne Gilbert, Austin; Parliamentarian, Mrs. John C. Parsons, San Antonio; Executive Secretary, Miss Hazel Casler, Austin.

boys toured with some shows and their spell held the magic of Merlin. "Mr. Wizard," a popular television show for grade school students is another excellent step toward removing the veil of mystery from everyday phenomena.

The science fair is a natural result. For generations the fair has represented a goal toward which one worked, whether one's interest was in crocheting antimacassars or showing a fine horse. The desire to win and move on to the district contest made it exciting, regardless of the fact that the tangible reward was nothing more than an embossed blue ribbon.

Now, the doctor, chemist, botanist, and others interested in the progress of science have joined forces to support and applaud the efforts of the student with the initiative to delve into science related fields. The Texas and American Medical Associations have given official sanction to science fairs, which the Woman's Auxiliary has adopted as a project. Mrs. Hal Norgaard, Denton, is chairman of the state Committee on Science Fairs, and at the local level, woman's auxiliaries have offered assistance as sponsors, provided citations for exhibits, arranged radio and television interviews for students, and made provisions for winners to attend larger fairs.

Local fairs in Texas are scheduled for February and winners will compete on a regional or district level in March. It is estimated that 340 contestants will enter the National Science Fair in Los Angeles in May. Sponsored by the Science Clubs of America, this fair will present awards worth $2,500.

Growing interest in the science fairs indicates that the long-range dividends from a minimum investment of time and money on the part of medical societies and auxiliaries will prove to be far beyond expectations.

DR. CHARLES McCALLUM

Dr. Charles McCallum, Mesquite, Texas, died November 22, 1956, of cancer and a stroke.

Son of Mr. and Mrs. John Tom McCallum, he was born December 28, 1875, in Pleasant Valley, and attended preliminary schools there. Later, he attended the Patterson Institute, Hillsboro, before entering the Memphis Hospital Medical College, Memphis, Tenn., from which he was graduated in 1905. He began his medical practice in the Oklahoma Indian Territory, and worked in Oakland, Randlett, and Quapaw from 1905 until 1935, when he moved to Texas to practice in Royse City. He remained there two years before moving to Mesquite, where he continued his medical practice until his health forced him into semiretirement about three years ago.

Dr. McCallum was a member of the Texas and American Medical Associations through the Dallas County Medical Society, and was elected to honorary membership in the state organization in 1951. He also had been presented a Golden "T" from the University of Tennessee for having been in medical practice 50 years. During World War II, he received awards from Presidents Roosevelt and Truman for his service as medical examiner for draftees and volunteers in his area. Dr. McCallum was a sports enthusiast, and usually served as team doctor for athletic squads wherever he practiced. He also was a member of the Masonic Lodge, Woodmen of the World, Kiwanis and Lions Clubs, and the Presbyterian Church.

DR. CHARLES McCALLUM

The former Miss Nealy Van Pelt and Dr. McCallum were married March 11, 1906, near Madill, Okla., which was then Indian Territory. In addition to their own children, Dr. and Mrs. McCallum reared two nieces and a grandson, and gave educational help to several other young people at various times.

Survivors include Mrs. McCallum; three sons, Ralph A. McCallum, Bismarck, N. D.; Charles Ray McCallum, Los Angeles; and Orlean D. McCallum, Houston; four brothers, Joe and Mack McCallum, both of Dallas; and Gee and John Tom McCallum, both of Garland; a sister, Mrs. Millard Flook, Garland; six grandchildren; and three great-grandsons.

DR. CHARLES W. THORNTON

Dr. Charles William Thornton, who practiced in Dallas, Texas, for almost 40 years, died November 4, 1956, of a heart attack in Hobbs, N. Mex., where he had lived in the home of his daughter for the past two years.

Born January 7, 1874, in Nevada, Mo., he was the son of Reuben T. and Myra (Putnam) Thornton. Dr. Thornton obtained his doctor of medicine degree in 1893 at the Beaumont Hospital Medical College in St. Louis. He did postgraduate work in New York and Chicago before opening his practice in Deerfield, Mo. After a time he moved to the Texas Panhandle, filing a claim on state land where Dalhart is now. He laid out the townsite and gave the city its name. He moved to Dallas in 1915 and was active in practice there until poor health forced his retirement two years ago.

During his residence in the Dalhart area, Dr. Thornton was local surgeon for the Fort Worth and Denver Railway and president of the local county medical society. In Dallas, he was a member of the Dallas County Medical Society, Texas Medical Association, and American Medical Association, being elected to honorary membership in the state association in 1952.

Dr. Thornton was married in Georgetown to the former Miss Mamie Cluck. She survives, as does his daughter, Mrs. Bob Wilson, Hobbs, N. Mex.; and two nieces.

DR. CHARLES D. FRANKLOW

Dr. Charles Davis Franklow, Dallas, Texas, died November 8, 1956, in a local hospital of coronary occlusion.

The son of Mr. and Mrs. J. H. Franklow, Dr. Franklow was born February 15, 1891, in Shiro, Grimes County, where he received his early education. He then attended Texas Christian University and old Fort Worth Medical College, receiving degrees in pharmacy and medicine in 1911 and 1915, respectively. Some 15 years later he did special work in Vienna. Dr. Franklow opened his practice in Shiro, then moved to Pilot Point, and finally settled in 1926 in Dallas, where he was director of the Medical Arts Laboratory.

DR. CHARLES D. FRANKLOW

Dr. Franklow belonged to the Dallas County Medical Society, Texas Medical Association, American Medical Association, Chamber of Commerce, Scottish Rite Masonic Order and Shrine, and Brook Hollow Golf Club. As a first lieutenant with the Army Medical Corps he was overseas 13 months during and immediately following World War I.

Miss Marion Cuthrell and Dr. Franklow were married June 6, 1916, at Navasota. Mrs. Franklow and two sisters, Mrs. E. T. Yates, Brownsville, and Mrs. Roland Schulze, Pleasanton, survive.

DR. HENRY STANFORD

Dr. Henry Stanford, Galveston, Texas, died November 7, 1956, of a myocardial infarction.

He was born July 22, 1917, in Taylor, and his parents were the Rev. and Mrs. Henry Stanford. After his graduation from Mount Vernon High School, Dr. Stanford earned his bachelor of science degree from Southern Methodist University, Dallas, and was graduated from the University of Texas Medical Branch, Galveston, in 1941. He interned at the King's Daughters Hospital, Temple, and spent one year in surgical residency at the Harris Clinic, Fort Worth. During World War II, Dr. Stanford served as a captain aboard the Army hospital ship, USS Algonquin. In 1947, he began his private practice in Mount Vernon; he remained there until shortly before his death, when he moved to Galveston.

DR. HENRY STANFORD

Dr. Stanford was a member of the Texas and American Medical Associations throughout his career through the Tarrant, Taylor-Jones, Hopkins-Franklin, or Camp-Morris-Titus Counties Medical Societies. He served as secretary of the Hopkins-Franklin group in 1948 and as its president in 1950. He also maintained membership in the Southwestern Surgical Congress, Texas and American Academies of General Practice, Masonic Lodge, Methodist Church, and Theta Kappa Psi medical fraternity. Interested in medical education, Dr. Stanford had a part in planning the preceptorship program now in effect at the University of Texas Medical Branch, and he was one of the first 35 preceptors to be named.

Miss Emily Evans and Dr. Stanford were married April 5, 1941, in Galveston. Mrs. Stanford survives, as do three children, Emily Jean, Mary Grace, and Faith Marie, all of Galveston; his mother, Mrs. S. M. Williams, Mount Vernon; and his mother-in-law, Mrs. W. L. Evans, who made her home with his family.

DR. HARRY B. JABLOW

Dr. Harry B. Jablow, Dallas, Texas, died September 23, 1956, in a local hospital.

He was born in Campbellsville, Ky., in 1888, and attended public schools in Louisville. He received his doctor of medicine degree from the University of Louisville School of Medicine in 1911, and interned one year at the United States Marine Hospital, Chicago. He then spent two years as a physician in the Contagious Diseases Hospital, Chicago, and as superintendent of the City Emergency Hospital, Chicago. In 1913, Dr. Jablow moved with his parents, the late Mr. and Mrs. Isaac Jablow, to Dallas, and began his private practice of medicine shortly afterwards, specializing in internal medicine. He was one of the first Dallas doctors to join the armed forces in World War I, and served on a Navy troop transport ship.

Dr. Jablow was a member of the Texas and American Medical Associations through the Dallas County Medical Society, and also was a member of the Temple Emanu-El.

Miss Mildred Bass and Dr. Jablow were married in 1943. Mrs. Jablow survives, as do two sisters, Mrs. Henry S. Miller, Sr., and Mrs. Leon Lichtenstein, both of Dallas.

DR. ROY GOGGANS

Dr. Roy Goggans, Dallas, Texas, died after a six weeks illness November 4, 1956, in a local hospital.

A native of Aquilla and the son of James B. and Caledonia Goggans, Dr. Goggans was born July 25, 1889. He attended public schools in Aquilla and Sam Houston State Normal School, Huntsville, before entering the Memphis Medical School and later Vanderbilt University School of Medicine, from which he received his medical degree in 1912. He served an internship at St. Joseph Hospital, Memphis, Tenn., then returned to Texas to begin practice in Chilton. He served on the staff of the state tuberculosis hospital near San Angelo before going in 1922 to Dallas,

DR. ROY GOGGANS

where he was superintendent of Woodlawn (tuberculosis) Hospital for 25 years. He retired temporarily in 1947 before becoming head of the Dallas Tuberculosis Control Center the next January, a position which he held for nine years.

Dr. Goggans was a member of the Dallas County Medical Society, Texas Medical Association, American Medical Association, Dallas County Tuberculosis Association, Texas Tuberculosis Association, American Trudeau Society, Masonic Lodge, and Methodist Church.

He and Miss Velma Read were married November 10, 1951, in Oklahoma City.

He is survived by his wife; a brother, Fred Goggans, Hillsboro; and a nephew.

DR. FOSTER D. SIMS

Dr. Foster D. Sims, Waco, Texas, died at his home October 10 of angina.

He was born October 7, 1876, in Falls County, and was the only child of Volney H. and Carrie (Foster) Sims. He attended public schools in Hill County and the University of Texas, Austin, and was graduated from the University of Texas Medical Branch, Galveston, in 1904. He practiced in Menlow for four years before moving in 1909 to Abbott, where he remained until 1942. At that time, Dr. Sims became associated with the Rusk State Hospital. About nine years ago he retired and had lived in Waco since then.

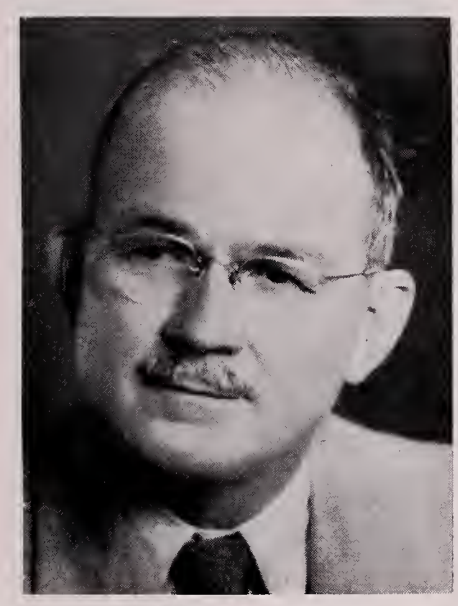
Dr. Sims maintained his membership in the Texas Medical Association and the American Medical Association through the Hill County Medical Society throughout his career, and served three terms as president of his county society. In 1951, he was elected to honorary membership in the state organization.

Miss Eunice May Swofford and Dr. Sims were married January 1, 1905, in Paint Rock. Mrs. Sims survives.

DR. THOMAS L. DENSON

Dr. Thomas Leland Denson, Cameron, Texas, died October 13, 1956, of the last of a series of heart attacks that had been troubling him for five years.

Dr. Denson was born March 3, 1901, at Maysfield, where he finished high school. He then was graduated from Baylor University, Waco, and the University of Texas School of Medicine, Galveston, obtaining his medical degree in 1929. He interned at King's Daughters Hospital, Temple, and did postgraduate work at Cook County Graduate School of Medicine, Chicago. After a short residency in Temple, he began practice in Cranfills Gap, moving shortly thereafter to Cameron. There he became associated with his father, Dr. John Denson, and his uncle, Dr. Tom Denson, to organize the Denson Clinic.



DR. THOMAS L. DENSON

A member of the Texas and American Medical Associations throughout his career, Dr. Denson belonged successively to the Bell, Bosque, and Milam County Medical Societies. He was secretary and then president of the Milam County Society for several terms. He also was a member of the Texas and American Academies of General Practice. Dr. Denson was consulting and local surgeon for the Santa Fe and Southern Pacific railroads. He was a member of the Christian Church, a thirty-second degree Mason, and past master of the local Masonic Lodge. He was the first president of the Cameron Country Club after its reorganization following World War II. An enthusiastic and able left handed golfer, Dr. Denson had set the highest batting average in the Southwest Conference when he played on the Baylor University baseball team.

June 3, 1929, Dr. Denson and Miss Ann Ruth Johnson

were married in Giddings. She survives, as do a son, John Talley Denson, Austin; a daughter, Mrs. J. Dale Paschal, Houston; a brother, Lane Denson, Dallas; and two sisters, Mrs. Roy Baskin and Mrs. Eber Flinn, both of Cameron.

DR. JAMES A. HILL

Dr. James Abraham Hill, a Houston, Texas, surgeon who pioneered in thyroid surgery, died October 16, 1956, of carcinoma of the liver and colon at Alpine, where he had spent most of his time recently with a niece and a nephew.

The son of Dr. James Theophilus and Sarah Jane (Womack) Hill, Dr. Hill was born May 14, 1872, in Goliad. He attended Texas Agricultural and Mechanical College and the University of Texas School of Medicine, Galveston, before being graduated in medicine at Tulane University, New Orleans, in 1900. He practiced for nine years at Groveton, then moved to Houston, where he was active until about two years ago.

A member throughout his career of his county, state, and national medical organizations, Dr. Hill was councilor of the Eleventh District from 1907 to 1909 and of the Ninth District in 1910 and 1911. He was chairman of the Section on Gynecology and Obstetrics for the 1916 annual session of the Texas Medical Association, in which he was elected to honorary membership last spring. He had been president of Harris County Medical Society. A founder member of the American Goiter Association and vice-president of the organization in 1940, Dr. Hill had limited himself to surgery of the thyroid gland for the last 20 years of his practice and was said to have performed more thyroidectomies than any other living American at the time of his retirement. He was a founder fellow of the American College of Surgeons and its governor for Texas for a number of years. He also was a fellow of the International College of Surgeons and of the Southwestern Surgical Congress.

DR. JAMES A. HILL

Dr. Hill was professor emeritus of clinical surgery at Baylor University College of Medicine and at various times served as chief of surgery at Memorial, Jefferson Davis, and Methodist Hospitals and visiting surgeon at St. Joseph's, Hermann, and St. Luke's Hospitals, Houston. During World War I he was chief surgeon at Walter Reed Hospital, Washington, D. C. He was a member of the board of directors of the First City National Bank, Houston; member of the Bayou Club, Houston; former member of the Houston County Club; member of the Alpine Country Club; and a thirty-second degree Mason.

Miss Lila Barnes, Trinity, and Dr. Hill were married in 1903. She died in 1905. Dr. Hill married again in 1923; his second wife, the former Miss Fanetta Wortham, Houston, died in 1951. Dr. Hill is survived by two sisters, Mrs. D. C. Hill, Eldorado, and Mrs. R. H. Yarbrough, Amarillo, and the niece and nephew with whom he had been staying, Miss Miltia Hill and Dr. Malone V. Hill, Alpine.

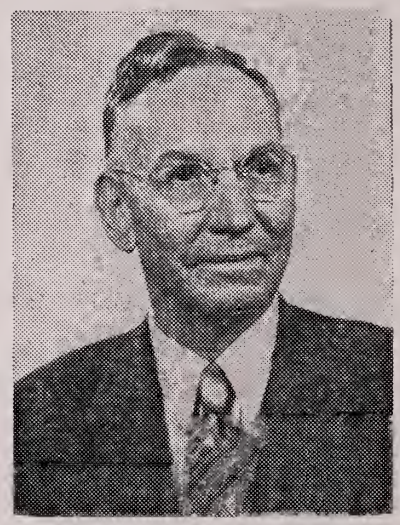
DR. WALTER M. WARREN

Dr. Walter Marvin Warren, Center, Texas, died in a Galveston hospital on October 26, 1956, as a result of a cerebral hemorrhage suffered ten days earlier.

Dr. Warren was born February 2, 1887, in Shelby County; his parents were Charles Wesley and Addie (Riggs) Warren. After being graduated from Center High School, he received his degree in medicine at the University of Texas School of Medicine in 1915 and interned at John Sealy Hospital, Galveston. He then opened his practice in Center.

A member of the Texas and American Medical Associations through the Shelby-San Augustine-Sabine Counties Medical Society, Dr. Warren also was a member of the Tenth District Medical Society. He was examining physician for Selective Service for many years and received a certificate of appreciation for this service from the late President Franklin D. Roosevelt. He was a thirty-second degree Mason and a member of the Shrine.

Miss Marguerite Jane Crawford and Dr. Warren were married in Center on January 2, 1923. Survivors include Mrs. Warren; one son, Walter M. Warren, Jr., Shreveport; one daughter, Mrs. Travis R. O'Rear, and two grandchildren, Center; four sisters, Mrs. Effie Johnson, Albuquerque, N. Mex.; Mrs. Ella Webb, Center; Mrs. Rena Edison, Neville; and Mrs. Nettie Holton, Longview; six brothers, Dr. W. H. Warren, Jess Warren, and Lee Warren, all of Center; Arch Warren, San Antonio; McDuff Warren, Neville; and Ellis B. Warren, Houston.



DR. WALTER M. WARREN

TEXAS State Journal of Medicine

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

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Mental Health Code Deserves Support

The thinking about mental health is undergoing a revolution in Texas. Whereas not long ago mental illness was looked upon as a crime at worst and a shameful condition at best, now it is coming into proper perspective as a health problem deserving the same type of consideration that physical illness receives. Evidence that the people of the state are reaching this conclusion is the adoption last fall of a constitutional amendment allowing a person suspected of being mentally ill to waive his right to have his sanity determined by a jury.

Even before this amendment was passed, the Board for Texas State Hospitals and Special Schools, cooperating with the Hogg Foundation for Mental Hygiene, University of Texas School of Law, Texas Society for Mental Health, and other interested groups, was at work on a new Texas Mental Health Code to make more adequate and up to date the regulations for commitment to and operation of state mental hospitals. This code was presented to the Texas Legislature January 15 for its consideration.

Its approach is to protect the medical, legal, and social interests of the mentally ill person. Under the proposed act, there are four procedures by which a person may gain admission to a state mental hospital. They are:

1. *Voluntary.* A patient may of his own volition seek and gain treatment at a state hospital. The board hopes this becomes the most often used in order that treatment may be had before the condition becomes serious.

2. *Emergency Commitment.* A patient may be admitted for 96 hours on the written request of a peace or health officer. This is primarily to take care of emergency situations arising when the matter cannot be brought to the attention of the county court.

3. *Temporary Hospitalization for Observation and/or Treatment.* The county court upon affidavits of two physicians may commit a patient for a period not to exceed 90 days.

4. *Indefinite Commitment.* The proposed patient is entitled to be tried before a jury unless he or his next of kin and an attorney ad litem, the latter two acting jointly, waive jury trial for him. This procedure cannot be used unless during the 12 months immediately preceding, the proposed patient has been hospitalized for observation and/or treatment for at least 60 days. This procedure is the most complicated and expensive, and the board hopes it becomes increasingly less used. Under the present law, persons indefinitely committed to a mental hospital are presumed thereby to be legally incapacitated. Under the proposed act, such is not the case unless the court or jury specifically finds them to be mentally incompetent. This was deemed necessary because many of our patients are not so deranged as to be unable to handle their business affairs. Upon the discharge of a patient found mentally incompetent at the time of commitment, the presumption of mental incompetency terminates. This would render no longer necessary the costly and embarrassing restoration proceeding required by present law.

In addition to the previously mentioned rights, by this act patients are given the right of appeal to the district court from orders of indefinite commitment, may have their need for continued hospitalization reexamined from time to time, and are guaranteed the right to communicate with persons outside the hospital. The new act also confers upon the hospital board authority to license and promulgate rules and regulations for the operation of private mental hospitals.

The proposed code was approved by the Executive Council of the Texas Medical Association the latter part of last month upon recommendation by the Council on Medical Jurisprudence. It is progressive in its outlook on mental illness, and its passage by the present Legislature should be supported.

—James H. Wooten, M. D., Columbus.

Opposite Ends Must Have Middle

While organized medicine and the Veterans Administration tug at opposite ends of the "care of nonservice-connected disabilities" rope, at least one lawmaker, Representative Olin Teague, Bryan, of the House Veterans Affairs Committee, has been at work on a plan to mollify, partially, both sides.

Mr. Teague was a guest speaker at the legislative conference held January 26 in Austin. He pointed out that no Congress would support either the extreme proposal of the Veterans Administration that all ex-service men be given free medical care for all disabilities, or that of the American Medical Association that no free medical care be given except for service-connected disabilities.

It would be virtually impossible to staff and maintain enough hospitals to carry out the former idea. On the other hand, some 71,000 veterans would land in civilian charity wards if the latter plan were followed, he said.

Mr. Teague's bill, H. R. 58, aims at weeding out instances of short term hospitalization for which the veteran could afford private care. The veteran would have to declare: (1) the extent of any medical, surgical, hospitalization, or health insurance and all annuities of which he is a beneficiary, (2) all insurance policies on his life, (3) the value of all real or personal property owned by him, (4) his average monthly income during the preceding six

months, (5) his average monthly expenditures, and (6) his net worth. The bill then provides that after reviewing these points with the veteran, the admission officer would read to the applicant the laws and the criminal code having to do with fines for making false affidavits or statements. Most important, the Veterans Administration official would estimate the length of hospital stay, and if under 30 days, would estimate the cost of treatment in private facilities. This would guide the veteran in deciding whether or not he could "afford" to pay.

After reviewing this bill in its meeting January 26, the Texas Medical Association's Council on Medical Jurisprudence approved it, and recommended that the Association commend Representative Teague for his work; the Executive Council concurred.

This bill is a starting point; it would cut down a great deal of the government expense in caring for short term cases, but still would provide for those who truly are unable to pay. This is a bill which Texas physicians can and should support as being of benefit to the profession and to the population as a whole.

Indoctrination Program Attendance Significant

Almost one-third of the provisional members of the Texas Medical Association attended the first Indoctrination Program in Austin January 26. The approximately 225 provisional members who have joined a county medical society since June 8, 1956, when the By-Law change was ruled effective by the Committee on Indoctrination, have their choice of four dates (each in conjunction with an Executive Council meeting during the 24 month provisional period of membership) to satisfy their obligation before being elevated to regular membership; 72 of these took the earliest opportunity to obtain a variety of information designed to help them in their practices.

The interest in organized medicine evident by the large percentage of new members who are not only willing but eager to learn more about their chosen profession is significant. Not only will they benefit personally, but also the component county societies will note a stronger, more informed membership as additional physicians take advantage of the program.

A summary of the Indoctrination Program, the Conference of County Medical Society Officials and Symposium on Legislation, and the Executive Council session appears in the Organization Section of this *Journal*. The over-all attendance for the week-end activities was considered outstanding, with 338 physicians and members of the Woman's Auxiliary registered. Perusal of the summary material will be of value to old and new members alike.

What Price Deliverance?

Tranquilizing drugs as we know them may be new, but the problems of tension they underscore are age old. An interesting approach to this subject was developed by the author Aldous Huxley in an address at a conference of physicians not long ago.*

Huxley reviewed the long history of man's efforts to escape from the stress of everyday existence—"to become something other and greater than the all too familiar Me." Tension has existed in all societies, Huxley pointed out, and in every human culture procedures for achieving temporary self-transcendence, thereby relieving tension, have been used.

Limiting himself to discussion of chemical and crowd methods of overcoming tension, Huxley reminded that despite the new pharmacologic agents recently popularized, there have been sedatives, narcotics, euphorics, hallucinogens, and excitants in use for thousands of years. Alcohol, opium, fasting, self-torture, all

**History of Tension, Conference on Meprobamate and Other Agents Used in Mental Disturbances, New York Academy of Sciences, New York, October 18, 1956.*

have been used as consciousness-changing and tension-releasing vehicles, often with the sanction of society and sometimes in religious rites. In crowds, the individual also can take a psychological vacation from his usual self, which goes about the daily business of living in purposeful and organized groups. In the crowd, which is chaotic, without particular purpose, and capable of anything except intelligent action, the individual is different from and worse than usual; he becomes a victim of "herd-poisoning," escaping "from insulated selfhood into a kind of subhuman mindlessness." Crowds, Huxley warned, may be exploited by the Hitlers of the world to their advantage and the ultimate disadvantage of the individuals who make up the crowds.

The problem of tension, Huxley opined, will be solved only when we have a perfect society. Meanwhile, we might teach our children how to act on the principles of good health, good morals, and good thinking. Too, we can give our children lessons in the elements of semantics and remind them to think realistically, being aware of the forms of propaganda so as to guard against misuse of crowd-intoxication for savage or sinister purposes.

Finally, Huxley declared, with pharmacology in this period of rapid growth, the next few years undoubtedly will bring scores of new methods for changing the quality of consciousness. So far as the individual human being is concerned, these discoveries will be more important, more revolutionary than the discoveries in nuclear physics. If nuclear energy does not destroy us, it will merely give us more of what we have already at the high price of harmful radiation and harmful mutations. Pharmacology will give us something most human beings have never had before: joy, peace, and beauty —and without the physiological cost of the time honored tension-relievers. Whether or not this will be a good thing for individuals or society or a bad thing, Huxley of course could not give the answer, but he predicted that many of our traditional ideas about ethics and religion, our current views about the nature of the mind, will have to be reconsidered and reevaluated in the context of the pharmacological revolution.

Constitutional Amendments

Two amendments to the Association's Constitution concerning restrictions on intern, resident, and inactive members will be up for a vote at the 1957 annual session in Dallas this spring. Proposed at last year's convention by the Harris County Medical Society, the amendments to Article II, Section 1, would prohibit these members from endorsing applications for membership or serving as delegates or alternate delegates to the Texas Medical Association. Inactive members, like intern and resident members, also would not have the right to vote or hold office. The resolutions calling for these changes are printed in the June, 1956, *Journal,* on pages 419 and 420, and each member should study them carefully.

TEAR HERE AND MAIL

To: Committee on Hotels, Dallas County Medical Society, 433 Medical Arts Bldg., Dallas.

REQUEST FOR ANNUAL SESSION HOTEL ACCOMMODATIONS

Please make the following reservation for the period of the Texas Medical Association annual session, Saturday, April 27-Wednesday, May 1, 1957, in Dallas, and confirm:

Number and Type of Accommodation:

_____

Arrival Date_____ **Departure Date**_____

Hotel (Adolphus and Baker Hotels, Association headquarters; Statler Hilton Hotel, Woman's Auxiliary headquarters; Lane Hotel, Ross Avenue Courts, and El Centro, Negro facilities.)

1st Choice_____

2nd Choice_____

3rd Choice_____

Signed_____

Street_____

City and State_____

President's Page

THE TIME FOR CONQUEST

The control of poliomyelitis—and its possible conquest—is now within the realm of possibility in the United States, and the medical profession is accepting its true responsibility to help achieve this goal.

Clinical reports have established the efficacy of the Salk vaccine in preventing or minimizing paralytic polio. Yet every week the newspapers in Dallas and other parts of Texas still report the pitiful tragedies of indifference, where adults who neglected the protection of polio vaccine come down with the crippling disease. Many of them die needlessly.

A year ago the supply of Salk vaccine was limited. Now it is abundant and available to all ages.

On January 27, physicians from all over the United States met at American Medical Association headquarters in Chicago and pledged the profession to a vigorous campaign to get all citizens to seek and accept vaccination against polio. Look for further details in subsequent issues of the *Journal.*

One of the greatest responsibilities of doctors lies in the field of preventive medicine. Here is a unique opportunity for individual physicians and county medical societies to serve their communities. Successful techniques for arousing public interest and securing active participation should be publicized and exchanged between medical groups. Newspapers and radio and television stations will cooperate willingly. Doctors and their wives are members of churches, service clubs, garden clubs, chambers of commerce, and similar organizations that will respond quickly to proper health leadership.

As a start, make sure that you, all members of your family, and all of your office assistants are protected with Salk vaccine. The life you save could very easily be your own!

TEXAS MEDICAL SERVES TEXAS!

The Texas Medical Association, through its Committee on Mental Health, is rendering a splendid service to our state in sponsoring the consultation on mental health needs of Texas by Dr. Francis J. Gerty

of Chicago. The consultant is an eminent authority in the field and is a member of the AMA Council on Mental Health. In his several visits to the Lone Star State, Dr. Gerty has impressed everybody with his sincere desire to meet adequately his unique opportunity.

The observations and recommendations of Dr. Gerty will be reviewed by our Committee on Mental Health in the immediate future, and resulting suggestions will then go to the Legislative Budget Board, the Legislature, the Governor, the Board for Texas State Hospitals and Special Schools, and similar responsible groups.

When the consultation is published, every doctor should familiarize himself with it, so he can advise intelligently with his state legislator, who probably will be sincerely interested in the opinion of the medical constituent "back home." An effective public opinion supporting progressive mental health measures can be built up by physicians and Auxiliary members.

And you and your wife will be interested, as citizens, in keeping up with the kaleidoscopic array of bills with health implications which are pouring daily into the hoppers of the Texas Legislature and the national Congress. Your *Texas State Journal of Medicine* and *Journal* of the AMA will keep you posted. Read them regularly; be posted—be alert!

INDOCTRINATION A SUCCESS

Seventy-two new members were given a cordial, personal introduction to their Texas Medical Association in the first indoctrination program at the central office in Austin on January 26. The concurrent conference of county medical society officials and symposium on legislation, together with meetings of many councils and committees and the Executive Council of the Association, brought a total of 338 to the headquarters building on a very inclement week end, from the weather viewpoint.

The indoctrinees were enthusiastic in their appreciation of their visit, and Association officers were well pleased with the initial session. The provisional membership plan is proving its value. To the forthcoming House of Delegates your president will have a few suggestions of possible practical revisions, and he will appreciate comments from you.

Milford O. Rouse, MD

ORIGINAL ARTICLES

Role of Intestinal Decompression In Treating Acute Mechanical Obstruction

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ANY INTERFERENCE with the normal downward passage of intestinal content is rightfully termed an intestinal obstruction. Such interferences are of a wide variety but in general may be classed into three major groups: (1) mechanical obstructions, which act through some physical interruption in the continuity of the intestinal lumen; (2) neurogenic obstructions, in which the fault lies in a disturbance in the peristaltic waves which propel the intestinal content downward; and (3) vascular obstructions, in which a primary "vascular accident," such as embolism of one of the main arterial channels in the mesentery, leads to such severe ischemia of the bowel wall that all muscular contraction fails.

Dr. Robert M. Moore, professor and chairman, Department of Surgery, University of Texas Medical Branch, presented this paper for the Section on Surgery at the 1956 annual session of the Texas Medical Association in Galveston, April 23.

Although intestinal decompression is primarily a method for combating distention, physicians constantly have attempted to substitute it for surgical operation in the definitive treatment of obstruction. Unfortunately, too little attention is paid to selecting patients in whom it is safe to defer operation until a satisfactory trial of decompression therapy has been made, with the result that this valuable form of supportive therapy is also responsible for many of the deaths which continue to occur.

In everyday usage the term intestinal obstruction has come to denote mechanical obstruction. Neurogenic obstruction, which is fully as common, is usually designated as ileus. Primary vascular obstruction is relatively rare and usually is considered apart. The present discussion is directed chiefly to mechanical obstruction. When it seems desirable to include other types of obstruction, special mention will be made.

STRANGULATION IN MECHANICAL OBSTRUCTION

Mechanical intestinal obstruction remains one of the most dangerous of surgical diseases. The dominating threat is the ever present danger of strangulation. This threat arises from the basic fact that many mechanical obstructions lead to interruption of the circulation to the intestinal loop involved, as well as to obstruction of its lumen. Such circulatory obstruction is called strangulation and the obstruction producing it is termed a strangulating obstruction, as opposed to one which is simple or nonstrangulating. Strangulation leads to gross gangrene of the affected intestinal segment. It is seen when the mesentery is twisted, as in sigmoid volvulus, or is constricted and compressed at the ring of a hernia or at the entrance into the receiving sleeve of an intussusception. It also occurs not uncommonly in obstructions caused by adhesion bands, since secondary torsion or volvulus is apt to occur when any intestinal loop has an abnormal point of fixation. In fact, the surgeon must keep constantly mindful of the risk of strangulation in every patient suffering from mechanical obstruction; and whenever operative intervention is deferred on the basis that the obstruction is of the simple or nonstrangulating variety, the possibility of strangulation having intervened must be reassessed at frequent intervals.

OTHER MECHANISMS PRODUCING NECROSIS

Necrosis with perforation and peritonitis constitutes the most deadly threat in intestinal obstruction. This danger is not confined to strangulating obstruc-

tions. In a number of other situations apart from mesenteric strangulation, mechanisms may be present which lead to impairment of circulation. Necrosis from external pressure upon the wall of the bowel has often been noted in nonstrangulating obstructions. For example, when the intestine is trapped by an unyielding adhesion, the edematous swelling of the intestinal wall at the point encircled by the adhesion may result in local gangrene at the site of constriction. A similar necrosis is considered to be an imminent threat in the Richter type of irreducible femoral or obturator hernia.

The harmful effect arising from increased internal or intraluminal pressure, in turn, is the important mechanism in other cases. As distention advances, the progressive increase in the tension within the bowel lumen finally flattens the vessels in the overlying intestinal wall. In the ordinary case of simple obstruction anemic necrosis of the bowel wall from such excessive distention is encountered only as a late effect and in neglected patients. A necrotizing intraluminal pressure may develop relatively early, however, in any simple obstruction which partakes of the "closed loop" character. The designation "closed loop" refers to a situation in which the lumen of the intestinal segment is occluded at both ends, so that there can be neither downward passage nor regurgitation. Thus, in the loop intervening between two separate mechanical obstructions no means is provided for escape of contents in either direction. The majority of strangulated loops fall into this category; for example, in volvulus there is occlusion of the lumen of both afferent and efferent limbs, and the same situation ordinarily exists in strangulated hernia.

The "closed loop" conception, however, has its foremost importance in colon obstructions. Although the ileocecal valve is imperfect in infants and small children, in many adults it is a truly competent or "one way" mechanism. In a very important group of patients the development of any complete obstruction distal to that valve amounts to completion of a "closed loop," since the intervening stretch of colon thus becomes shut off at both ends. Although the secretion of the colon is not bulky, the formation of large volumes of putrefactive gases and the continued entry of content from the terminal ileum often combine to produce a rapid rise in intraluminal pressure to a dangerous level seldom reached in small intestinal loops. Consequently necrosis and perforation, usually at the cecum, may occur relatively early in a complete obstruction caused by carcinoma of the left colon.

As a final mechanism, necrosis with rupture and peritonitis is the natural end to be expected when there is a primary vascular obstruction such as mesenteric embolism or thrombosis.

LETHAL EFFECTS IN SIMPLE OBSTRUCTION

Necrosis with perforation is not the only threat to life in intestinal obstruction. We know that patients with complete obstruction of the simple variety will die if left untreated. In strangulating obstructions the immediate danger is readily apparent; if the strangulated loop is left in situ until perforation and dissolution occur, an overwhelming peritonitis almost certainly will follow. In simple or nonstrangulating obstructions, in contrast, dangers which are equally real are at first glance much less obvious. Actually, the primary lethal processes in simple obstruction have been identified repeatedly by clinical observation. As clinicians we have learned that, so long as strangulation is absent, the patient with obstruction ordinarily can be maintained for several days without too great deterioration provided two requirements can be met. First, progressive distention of the proximal intestine must be prevented, and second, dehydration and electrolyte losses must be corrected effectively by parenteral replacement. Therefore the immediate dangers in nonstrangulating intestinal obstruction stem from distention and from water and electrolyte loss. A triad of primary lethal effects of mechanical obstruction will be completed should strangulation enter the picture.

DISTENTION

Distal to an obstruction the intestine lies empty and inactive, whereas proximally there is a rapid accumulation of bowel content. For the resulting distention to be marked, it is not necessary for oral intake to continue. Under ordinary circumstances the gastrointestinal tract secretes into its lumen as much as 8 L. of digestive fluid daily, and this secretion continues in part even when nothing is ingested. Normally, reabsorption is at such a rate that only a small volume of water (100 to 150 cc.) is lost in the stool. Obstruction upsets this balance, however. Secretion into the intestinal lumen actually may be increased, whereas the normal reabsorptive power is significantly lacking. This combination of increased secretion and defective absorption is typical of distended, irritated intestine.

The degree of distention of the proximal intestine depends upon the completeness of the obstruction and upon the time which has elapsed since its onset. At the start the dilatation of the bowel is greatest immediately above the obstruction. If there is no relief, however, eventually the entire proximal tract becomes involved. Thus, except for obstructions located high in the jejunum, the aggregate volume of the distended proximal coils eventually becomes sufficient to create a serious problem in abdominal dis-

tention, the tightly expanded abdomen interfering mechanically with such vital functions as respiration and venous return.

The content of the distended intestine is both liquid and gaseous. The liquid element is made up of accumulated secretions or hypersecretions, food residues, and the products of bacterial multiplication. In obstructions of the small intestine the gas consists chiefly of swallowed air (70 per cent). Nausea and thirst aggravate the patient's tendency to swallow air. Air is in large part nitrogen (80 per cent), an inert gas which is absorbed extremely slowly even under normal conditions. As a consequence, air swallowing is the major factor in the gaseous distention which follows obstruction of the small intestine, and only by use of some decompressing device which recovers the air immediately as it is swallowed can distention be prevented.

In unrelieved intestinal distention, the progressive increase in intraluminal tension may interfere eventually with the flow of blood through the wall of the bowel. As stated previously, however, with the exception of "closed loop" cases, any marked circulatory impairment in simple obstruction is a gradual and late effect.

WATER AND ELECTROLYTE LOSS

A number of mechanisms take part in the severe water and electrolyte loss characteristic of advanced intestinal obstruction. The deficit from interruption of oral intake and the loss from vomiting are readily apparent and require no detailed comment. Less obvious but equally significant are certain internal or hidden depletions. Since the absorptive power of the intestinal mucosa becomes increasingly defective as distention develops, gastrointestinal secretions which are poured into the obstructed intestine are lost to the body just as effectively as are those which are vomited. Furthermore, the dilatation of the bowel may serve by irritation actually to increase the flow of secretions. In low obstructions, as a consequence, the proximal intestine fills with an accumulation of water and essential electrolytes, which is of no avail whatever to the body. In this situation dehydration and electrolyte loss may be well under way even before the advent of vomiting.

In the relatively infrequent obstructions arising very high in the small intestine the vomiting tends to be immediate and constant and results in an imbalance approaching somewhat that seen in pyloric obstruction. Dehydration, being accompanied by a greater loss of chloride ion than of sodium, results in hypochloremia and an alkalosis which is evidenced by elevation of the carbon dioxide combining power of the blood. In obstructions at lower levels the vomiting is usually intermittent and less copious at the start; and since the loss of sodium ion equals or exceeds that of chloride ion, the patient is prone to develop an acidosis unless there has been adequate parenteral replacement. In neglected cases of small bowel obstruction at either level severe dehydration leads to hemoconcentration and to oliguria, and often renal damage is reflected in an elevated nonprotein nitrogen level in the blood. Potassium deficiency is another complicating factor in late cases, as is also a sizable loss of plasma through the bowel wall. Since the presence of hemoconcentration tends to mask such deficits, all laboratory data must be interpreted with this effect in mind.

LOSSES OF PLASMA AND WHOLE BLOOD

In simple obstruction the intestinal wall is reddened and edematous. The distended loop often "weeps" so that a protein containing transudate collects in the peritoneum. If the obstruction produces strangulation, the affected loop shows the changes of hemorrhagic infarction. Ordinarily the veins are occluded first by a strangulating force acting upon the mesentery, and for a time the systolic pressure continues to drive arterial blood into the congested intestinal wall. There is a consequent rupture of venules with blood escaping into the intestinal lumen, sometimes in a quantity sufficient to produce hemorrhagic shock. There may be a similar escape of blood from the serosal surfaces of the strangulated intestine and mesentery so that the peritoneal fluid takes on a sanguinous character. Finally the mounting tension within the lumen of the strangulated loop stops all capillary circulation in the wall and frank gangrene follows. The gangrenous intestine soon perforates, but even before gross perforation is evident the necrotic wall has served as a portal through which bacteria and toxic agents have escaped into the peritoneal cavity.

BACTERIAL ACTIVITY

This escape of bacteria and toxins through the wall of gangrenous intestine contributes the final and most deadly effect in intestinal obstruction. Once this stage is reached the mortality rate will be formidable no matter how energetic and skillful the treatment. This is borne out by long experience of surgeons that intestinal resection necessitated by gangrene of an obstructed loop carries much greater risk to life than does intestinal resection performed for

other reasons. The difference, of course, arises from the fact that by the time gangrene has developed the peritoneum has already been subjected to a heavy dose—perhaps a lethal dose—of noxious contamination by agents set free from the intestinal lumen.

The harmful effects of bacterial activity in intestinal obstruction are not limited to this late phase of peritonitis following bowel necrosis. Bacterial activity serves to increase distention by augmenting the secretion of the intestinal mucosa and by adding gases to the intestinal content. It also plays an important role in initiating and accelerating the gangrene which results from circulatory impairment. Bacterial invasion of the bowel wall is a potent factor in causing venous thrombosis and tissue death. There have been repeated demonstrations that control of bacterial activity through intestinal antiseptics delays and limits tissue necrosis in loops which are partially devitalized. Clinically this is particularly telling in areas where blood supply is deficient but not entirely lacking. In such marginal and less extensive areas of defective circulation collateral blood supply is sometimes reestablished in time to avert actual gangrene if invasion by bacteria can be prevented in the interim.

TOXEMIA THEORY

Since at one time it was difficult to understand why certain patients died from simple or nonstrangulating intestinal obstruction, a toxemia theory often has been proposed to explain such deaths on the basis of a perverted absorption from damaged intestine. Thus, for example, systemic effects were at one time attributed to products of protein breakdown such as histamine. Although experimental tests have failed consistently to identify any specific substance, certainly the possibility exists that when intraluminal tension is greatly elevated, the vessels and lymphatics of the edematous bowel wall may take up products which are toxic systemically. There has been little positive evidence, however, that such absorption is actually appreciable so long as the layers of the wall retain their viability. Too often the symptoms arising from severe dehydration and electrolyte loss have been attributed to a conjectured toxemia.

Once the viability of the intestinal wall is impaired the situation is radically different. Necrotic tissue then offers an easy avenue for direct escape of bowel content into the peritoneum, where absorption is much less selective than is absorption through the intact mucous membrane. Consequently systemic and toxic effects such as fever and prostration are no longer a mystery once there is gangrene and peritonitis.

PROGNOSIS

Twenty-five years ago intestinal obstruction was a dangerous disease indeed. One sees estimates of mortality rates as high as 40 per cent. During the ensuing years a number of improvements have become possible in the management of obstruction, and today reports appear from many centers citing an operative mortality rate of 10 per cent or less. In spite of the possibility of such a lowered rate, it is the gathering realization that for the country as a whole the overall risk still exceeds this figure greatly. At the same time one must bear in mind that in this day and age an operative risk as great as 10 per cent is not the usual thing in abdominal surgery. Obviously, acute intestinal obstruction is one of the most dangerous of the emergencies which the surgeon meets; possibly it is the most dangerous of those which are common. In managing a condition which still carries such grave threat to life, it is well to reassess facts frequently in search for further improvement.

IMPROVEMENTS IN THERAPY

Advances in the management of anesthesia and in the details of surgical technique have had favorable effects upon the outlook in intestinal obstruction. As far as operative methods are concerned, a particularly important advantage has accrued from the increasingly widespread practice of emptying acutely distended intestinal loops at time of laparotomy by use of direct suction-aspiration. This aids in locating and releasing many obstructions which otherwise might be very difficult of access, whereas at the same time the patient is left in a condition much more favorable to recovery than if the abdominal wall were closed over greatly distended bowel. Antibiotic substances have been found particularly valuable in treating strangulating obstructions; they help to delay the onset of necrosis as well as to combat its ill effects. Nevertheless, in dealing with strangulation, it is the universal conclusion that antibiotics are no substitute for prompt surgery.

Because of the ever present risk of strangulation, the treatment of mechanical obstruction must remain primarily surgical. It is important to correct water and electrolyte losses by energetic parenteral replacement, and it is also important to prevent additional distention by use of decompressing devices and to relieve distention already present when that is practicable. However, there must be constant care lest attention be concentrated upon these adjunct measures to such degree as to delay unduly an operation which is vital. It is in connection with intestinal decompression that this warning is especially needed.

DECOMPRESSION: ADVANTAGES AND DISADVANTAGES

Decompression of the small intestine is accomplished by continuous aspiration of content by way of a tube passed through the nose into the stomach or upper intestine. The method was introduced by Wangensteen in 1931, using a tube which passed through the stomach into the duodenum whenever possible, and applying constant gentle suction through the tube by means of a simple water siphon apparatus. Following demonstration of the value of this method, Miller and Abbott in 1934 introduced a longer tube for decompression, the tube having a double lumen and carrying an inflatable balloon at its tip. Many modifications of this tube having been offered; long decompression tubes carrying various names are now available commercially. Once the tip of the tube has passed from the stomach into the duodenum—this passage through the pylorus continues to be the trying and often time consuming problem in intestinal intubation—the balloon is inflated to serve as a bolus which peristalsis propels distally along the intestine. If the intubation is ideally successful, the tip of the tube eventually comes to lie just proximal to the point of obstruction so as to effect complete emptying of the proximal intestinal loops.

In any discussion of decompression it should be emphasized that prevention of distention is not nearly so difficult as is the relief of distention once it has become established. In patients who are not yet distended the institution of simple gastric suction by way of a Levin tube which stops short of the pylorus will serve to recover all air swallowed thereafter as well as any content regurgitated from the duodenum, provided of course that the tube is kept open so that it can function. This suffices to prevent the development of distention. Once distention is present, however, gastric suction serves only to prevent augmentation of the existing distention. If the Levin tube can be passed through the pylorus, decompression from within the duodenum is somewhat more efficient. However, for satisfactory removal of the voluminous content from loops which are already distended, intubation to a point beyond the duodenojejunal flexure, where sharp angulation often is caused by the ligament of Treitz, is most effective. This requires the use of one of the long tubes. Sometimes the tube can be advanced past the pylorus and into the intestine rapidly, but unfortunately in many cases intubation is time consuming or impossible. After 24 hours one may find that only gastric intubation has been accomplished. This difficulty remains the chief hindrance to effective decompression therapy, while the delay incident to unsuccessful attempts to intubate the intestine may be a very dangerous delay when treating patients having intestinal obstruction. Whereas laparotomy admittedly is more hazardous when performed in the presence of marked distention, that danger to the patient is not nearly so great as is the danger arising from delay when strangulation is present or imminent.

Although intestinal decompression is primarily a method for combating distention, the history of its development has been colored by constant attempts to substitute decompression for surgical operation in the definitive treatment of obstruction. These attempts are easily understood in the light of clinical experience that in some early or incipient obstructions in the small intestine decompression of itself actually does serve to release the obstructing mechanism so that an emergency surgical operation becomes unnecessary. Very naturally, experience with such cases has led to repeated trials in substituting decompression for operation in treating other patients with obstruction, and many studies have been made to determine the possibilities and define the limitations of such "nonoperative management."

Unfortunately, however, too little heed is given to repeated warnings pointing out the great difficulty in selecting cases in which it is safe to defer operation while a satisfactory trial of decompression therapy is being made. Lack of appreciation of this difficulty continues to lead to costly misuses of decompression as a tentative substitute for surgery. Unless the surgeon is highly critical a false sense of security is fostered by the cessation of pain and vomiting which follows institution of suction, and by the temporary improvement in the patient's condition which is brought about by the concurrent administration of water and electrolytes. Often these improvements are interpreted as indication of a relief of the obstruction rather than a relief of certain symptoms. In many instances, consequently, surgery is postponed unduly until a subsequent deterioration in the patient's condition finally forces operation upon the surgeon at a time when greater hazards are faced than would have been the case with prompt surgery. In these patients it is not unusual for the tardy laparotomy to reveal that an unrecognized strangulation has been present, and that the delay intended for the patient's benefit actually has operated to his great harm. Thus, although intestinal decompression is a valuable adjunct when used properly, improperly used it may lead to disaster.

In some instances the advent of strangulation in small bowel obstruction produces sudden and dramatic changes which are easily recognized. In many other cases, unfortunately, strangulation develops insidiously without striking and abrupt changes, so that its early detection becomes difficult or impossible. Upon this fact hangs frequently the surgeon's greatest dilemma in treating intestinal obstruction, namely,

the problem of proper management when marked distention and advanced water and electrolyte imbalance already are present when he first sees the patient. In this situation delay in operative intervention for a day or more while these complications are righted might well serve the patient's interest, but only provided the surgeon can be certain that strangulation is neither present nor impending. To aid in this dilemma many studies have been made with the purpose of establishing dependable critera so that strangulation can always be recognized early and accurately. Increased pain and pain of a constant type, pain in the back, increased pulse rate, the presence of a mass, tenderness, leukocytosis, and beginning abdominal rigidity are signs of strangulation most commonly cited. With such points in mind some surgeons find that they can detect strangulation early and accurately. Many others, however, report that they have met with less success in this regard.

A basic fallacy underlies the emphasis placed upon early detection of strangulation if it is interpreted to suggest that relief will be in time so long as one proceeds promptly with operation as soon as strangulation is recognized. To the contrary, no one can deny that the surgeon does much better by his patient if the intestinal loop can be released before gross impairment of circulation has occurred, not after. No doubt in many instances the release of a strangulated loop is followed by return of adequate circulation to attest its viability. In many other instances, however, this is not the case, and resection becomes necessary in an extremely ill patient. It is well to keep in mind that a number of the so-called signs of strangulation actually are signs of inflammation, that is, the early signs and symptoms of the peritonitis which results from strangulation.

CLINICAL MANAGEMENT OF INTESTINAL OBSTRUCTION

Mechanical obstruction is a surgical disease and with few exceptions its relief requires a surgical operation. Emphasis must be placed upon operative intervention with minimal delay, rather than upon attempts to avoid operation. The difficult decision lies in the definition of "minimal delay" in the patient who already is distended or in whom water and electrolyte replacement is badly needed. In an outline of management with these thoughts foremost in mind, the common situations presenting in intestinal obstruction fall into several groups. Occasional patients occupy a questionable or borderline position between two groups. Moreover, just as exceptions must be permitted to any rule, in managing particularly difficult situations relating to obstruction proper allowance must be made for surgical judgment and for the common sense which is based upon surgical experience.

1. *Patients with Obvious or Suspected Strangulation.*—When confronted with a case of complete obstruction, the surgeon must arrive quickly at a conclusion relative to the likelihood of strangulation existing. If he concludes that strangulation is present or imminent, emergency operation is mandatory and he must proceed without delay. In most situations an hour or more will be required to examine the patient, prepare the operating room, and give preanesthetic medication. During this time isotonic saline solution is given intravenously, emergency laboratory determinations are made, antibiotics are administered, and blood transfusion is arranged or started. Gastric suction should be instituted to prevent augmentation of the distention. Supportive treatment is continued during and after operation. In the presence of recognized strangulation greater delay is seldom justified. Within this short period the correction of water and electrolyte depletion hardly can be complete and often will be very inadequate. Liberal transfusion of blood often helps to sustain the patient in the emergency.

2. *Patients with Obstruction Thought to Be Nonstrangulating.*—Patients with early cases of obstruction require least in preparation. Since distention is not yet severe, they are ideal for operative relief, and under modern conditions the surgical risk is not great. For these reasons there is good basis for recommending immediate operation in all early obstructions. Perhaps a few patients will be operated upon unnecessarily—those few which might relieve themselves during a trial of intubation and suction—but operative risk in these will be slight indeed. In the other cases the danger of overlooking occult strangulation will be avoided, and the over-all risk will be less than when such patients are treated first by a lengthy trial of decompression in hope of obtaining relief without operation.

When, in the surgeon's opinion, an obstruction is simple or nonstrangulating, he must remain alert to the possibility that it may change in character, and frequent reassessment with respect to the possible presence of strangulation is essential. Furthermore, since it is notoriously difficult to recognize the advent of strangulation in distended patients, it is wise to avoid procrastination by setting in one's own mind definite time limits for the preparation of the patient. This is particularly important when, in distended cases, decompression therapy has been instituted, for it will mask many of the symptoms of obstruction.

Furthermore, one must guard lest unsuccessful attempts to intubate the intestine be continued until the net effect actually has been an increase in distention. Unless the attempt to intubate is successful within a few hours it is often wise to abandon the attempt in order to concentrate upon gastric suction so as to prevent any augmentation of the existing distention. Furthermore, there is considerable justification for the proposal of some that a six hour time limit be set for preparing such patients for operation. Parenteral replacement therapy often will be incomplete at the end of this period, but minimal requirements usually can be met. Fluid replacement can be continued during and after operation, and transfusion of whole blood can be added. Distended patients also are benefited by direct suction-aspiration by trocar or needle of the greatly distended loops encountered during laparotomy. This last maneuver has become widely practiced since the advent of antibiotics. Peritoneal contamination through spill should be held to a minimum.

3. *Patients with Early Postoperative Obstruction.*—Early postoperative obstructions must be considered separately, since in such cases it may be impossible to observe the time limitations which are recommended for obstructions in general. After major abdominal surgery a period of reflex inhibition of intestinal motility may be expected for a day or two. If at the end of this period symptoms arise which suggest mechanical obstruction, considerable additional time may be required to determine whether obstruction actually exists. Indeed, the patient may be suffering from a prolongation of the paralytic ileus or may be only experiencing gas pains coincident with recovery of the intestine from ileus. A period of 24 hours or more may be needed to arrive at a diagnosis, whereas developments during the subsequent hours may serve to reverse that decision. Inasmuch as inflammation and edema commonly play an important role in the early postoperative period, a number of these obstructions are from soft, vascular adhesions and may be relieved completely by decompression therapy. This fact and the widespread impression that there is little risk of strangulation have resulted in overconfidence in dealing with such cases. However, an early postoperative obstruction is not necessarily due to fresh adhesions; it may be the result of old adhesions, or of volvulus, or of hernia through a postoperative defect, and strangulation does result in 10 per cent or more of early postoperative obstructions. Therefore, once obstruction is diagnosed in these patients, surgical exploration is in order unless relief by intubation is prompt and unequivocal.

4. *Patients Having Colon Obstruction with Marked Distention.*—Immediate surgery is required when acute colon obstruction is accompanied by marked distention. Otherwise, since many colon obstructions are of the closed-loop type, delay is apt to result in necrosis and perforation. Tube decompression of the small intestine must never be expected to relieve the greatly increased tension within an obstructed colon. The use of nasogastric suction is an important adjunct, however, in order to prevent any increase in the distention already present.

In obstructions of the small intestine it is usually practical and desirable to combine at one sitting the release of the obstruction and the definite treatment of the causative lesion. Although this is sometimes necessary in large bowel obstruction also, as in late sigmoid volvulus with gangrene, in the usual case of colon obstruction the reverse is true. Experience has demonstrated that when large bowel obstruction is the result of a chronic disease, such as carcinoma or diverticulitis, the ill effects of the obstructive episode are superimposed upon the debilitation resulting from the causative lesion to the extent that surgical interference is not well tolerated, and one-stage or primary colon resection becomes unduly hazardous. By far the safest procedure for these patients is immediate surgery in the form of a palliative decompression of the distended colon, performed by establishing an artificial vent—a colostomy—in the large bowel proximal to the obstruction, the site of obstruction having been demonstrated by an emergency barium enema.

5. *Patients in Whom Obstruction Is Relieved During Preparation.*—Occasionally in certain types of obstruction relief will be effected, at least for the time being, during the process of preparing the patient for operation. Obviously an emergency operation becomes unnecessary if normal passage of gas by rectum is restored as a result of instituting upper intestinal decompression, or, as sometimes happens, during the course of evacuating the colon by enemas. However, the patient should be observed for any return of symptoms, and diagnostic studies should be planned to determine the cause of the obstructive threat. Often an underlying lesion will be discovered which requires surgical treatment at a date of election.

It should be emphasized that the resumption of passage of gas by rectum is the sole dependable sign of relief of the obstructive threat. This is particularly the case once gastrointestinal suction has been instituted. After adequate decompression is effected, not only is vomiting prevented but also the cramping pains often disappear; in addition, the distention may be relieved materially. These beneficial effects of decompression must not be taken for evidence that the obstruction has been released. They indicate only the relief of symptoms, and to interpret them otherwise is to ignore the strong possibility that the obstruction actually persists.

CONCLUSION

In conclusion, it can only be repeated that intestinal obstruction is a surgical emergency and that the emphasis in management is properly placed upon operative intervention. The delay prior to operation must be kept to a minimum.

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Diverticulosis of The Colon and Its Complications

Medical or Surgical Problem?

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Dr. Herbert A. Bailey and his co-author, Dr. Cecil O. Patterson, are gastroenterologists in Dallas. This paper was presented before the Texas Society of Gastroenterologists and Proctologists in Galveston, April 23, 1956.

In 4,900 barium enema examinations, 1,197 cases of colonic diverticula were observed. A comparison was made of diverticulitis and diverticulosis and of cases of diverticulitis managed in an office and those managed in a hospital. Little difference in symptoms was noted in office and hospital cases. Hemorrhage, obstruction, fistulas, and probably abscess and perforation are indications for surgery.

THIS is a review of 1,197 cases in which colonic diverticula were demonstrated in an office practice devoted to gastroenterology. There were 4,900 colon studies on new patients during the review period, giving an incidence of 24.4 per cent diverticula in this group (table 1). The reported incidence varies from 1 in 250[7] to 25 to 30 per cent.[12] This, then, is a common finding and its management should be fairly uniform. The diagnosis of diverticulitis is based on roentgenographic and clinical findings. Goulard and Hampton[6] have shown that the saw-tooth deformity is not the result of inflammation per se. Of 70 patients hospitalized with diagnosis of diverticulitis, made on basis of this roentgenographic finding, they found that only 35 had a clinically acceptable diagnosis of diverticulitis.

TABLE 1.—*Incidence of Diverticulosis, January, 1951-January, 1956.*

Total cases	1,197
Diverticulosis	1,092
Diverticulitis	107 (8.9%)
Barium enemas	7,189
Enemas repeated for various reasons	2,289
Enemas on new patients	4,900
Incidence of diverticula in enemas (new)	24.4%
Incidence of diverticulitis in enemas (new)	2.1%

The literature on this subject in the past five years has appeared predominantly in surgical journals, with emphasis on the elective surgical approach to diverticulitis to prevent the development of complications. Barborka and Texter[2] stated that diverticulitis per se always should be treated conservatively, with surgical intervention being reserved for the management of complications. We adhere to the latter policy in office practice. To aid in arriving at a conclusion regarding the soundness of this policy, a comparison of the cases of diverticulitis and diverticulosis was made. A comparison of this office series of diverticulitis

TABLE 2.—*Symptoms of Diverticulitis in 107 Office Cases and 434 Hospital Cases.*

Symptoms	Office Patients (No.)*	Hospital Cases (%)†
Onset		
Gradual	95	
Sudden	12	
Pain		50
Left lower quadrant	61	16
Cramping, general	15	25
Epigastric	7	
Rectal	3	
Other	12	
Gas, bloating	11	12
Bowel habits		
Regular	60	
Constipation	30	16
Diarrhea	15	12
Alternating	8	
Nausea, vomiting	3	26
Fever	13	16
Blood in stool	10	15

*For practical purposes, these are percentage figures also.
†After Patterson, C. O.: Diverticulitis of the Colon, Gastroenterology 18:201-206 (June) 1951.

with a previously reported series of hospital cases of diverticulitis from Dallas[10] also was made.

The symptoms of the diverticulosis group were those either of an associated disease or of functional bowel distress. Table 2 reviews the symptoms in the cases of diverticulitis in this series and indicates little difference between the hospital and the office group, except as regards nausea and vomiting. Nausea and vomiting were greater in the hospital group, and this indicates a greater severity of the disease as manifest by obstruction, either paralytic or mechanical, in the hospital cases. Table 3 gives additional comparative

TABLE 3.—*Comparison of Diverticulosis and Diverticulitis.*

	Diverticulosis (No. Patients)*	Diverticulitis (No. Patients)
Total patients	1,092	107
Weight		
Normal	811	75
Obese	232	27
Underweight	49	5
Increase	35	6
Decrease	118	16
Stable	939	85
Blood in stool		
Gross	26	10
Chemical	250	30
None	816	67
Bowel habit		
Regular	698	62
Constipation	267	30
Diarrhea	101	13
Alternating	26	2
Site		
Sigmoid	659	58
Ascending and sigmoid	371	37
Entire colon	45	12
Ascending	17	0
Physical examination	0	29

*Figure divided by 10 equals approximate percentage.

data. When it is borne in mind that these figures are approximations of percentages, it is apparent that bleeding occurs more often in diverticulitis and that the physical examination is more helpful than in diverticulosis. Weight, bowel habit, and location of the diverticula are similar. Stanton[13] noted gross bleeding in 28 per cent with massive bleeding in 10 per cent of 131 cases of diverticulitis or diverticulosis. At New Orleans Charity Hospital 37 of 76 patients admitted for complications of diverticulosis bled moderately to massively.[11] Hoar and Benard[8] noted that 16 per cent of 236 patients with diverticulosis bled.

Table 4 compares the complications in the office group with those in the hospital group.[10] The percentile frequency is about the same, but only 12 of the office patients had complications of such severity that they were hospitalized.

As shown in table 5, there is no definite relationship between diverticulitis and associated diseases.

The relationship between age of the patient and duration of the disease may be seen in tables 6 and 7. First, it is obvious that diverticulosis is seen at an earlier age than diverticulitis. After giving 2,000

TABLE 4.—*Comparison of 434 Hospital Cases in Dallas* with 107 Office Cases in Gastroenterologic Office.*

Complication	Hospital Patients	Hospital %	Office Patients	Office %
Colonic obstruction	36	8.3	8	7.4
Complete	3		3	2.8
Partial	10		5	4.6
Unspecified	23		0	
Perforation	26	6.0	8	7.4
Fistulas	23	5.3	1	1.0
Abdominal	15	3.4		
Vesicocolic	7	1.6		
Perineal	2		1	1.0
Rectovaginal	1			
Abscesses	21	5.0	11†	10.2
Generalized peritonitis	14	3.0	1	1.0
Anemia	14	3.2		
Neoplasms	13	3.0	5	4.6
Benign	4		3	2.8
Malignant	9		2‡	1.8
Obstruction of small intestine	8	1.8	0	
Adhesions	6	1.3	0	
Foreign body concretions	5	1.1	0	
Vesical ulceration	4		2§	1.8

*Patterson, C. O.: Diverticulitis of Colon, Gastroenterology 18:201-206 (June) 1951.
†Primarily roentgen diagnosis.
‡Bladder and cecum.
§Irritation, not actual ulcer.

consecutive enemas at Massachusetts General Hospital, Welch and others[14] reported no diverticulosis or diverticulitis in patients less than 35 years of age. There were 22 patients with diverticulosis younger than 30 years of age in our series. Second, some of the patients in the older age groups in our series had known diverticulosis before an attack of diverticulitis, but the average duration of the diverticulosis is short,

TABLE 5.—*Associated Diseases in 107 Cases of Diverticulitis.*

Disease	No. Cases
Duodenal ulcer	8
Gallstones	4
Pulmonary disease	1
Rectal polyps	3
Carcinoma of bladder	1
Carcinoma of cecum	1
Arteriosclerotic heart disease	3
Hiatus hernia	2
Psychosis	1
Diabetes	1
Cirrhosis	1
Total	26

indicating that this condition had not been a problem and, therefore, the inflammatory process first called these outpouchings to the attention of patient and physician. Third, in the short period of this study, an

average of 2.9 years has lapsed since the last conservatively managed attack of diverticulitis. All attacks of diverticulitis were simple except in 24 patients, who had a total of 55 attacks. The usual duration between attacks was 1 to 3 years; the longest duration observed was 10 years.

TABLE 6.—*Distribution of Diverticulosis and Diverticulitis by Age Groups.*

	Age Groups (Yr.)							
	20-29	30-39	40-49	50-59	60-69	70+	Unknown	Total
	Total Cases (No.)							
Diverticulosis	22	78	201	277	266	110	31	985
Diverticulitis	0	3	25	38	30	8	3	107
	Duration of Disease (Yr.)							
	Tot. Av.	Tot. Av.	Tot. Av.	Tot. Av.	Tot. Av.	Tot. Av.	Tot. Av.	
Diverticulosis	57 2.6	218 2.8	542 2.7	782 2.8	769 2.9	322 2.9	89 2.9	
Diverticulitis:								
Before attack of diverticulosis	0 0	0 0	2 .1	20 .5	38 1.3	41 5.1	0 0	
After attack of diverticulosis	0 0	9 3	94 3.8	87 2.3	102 3.4	26 3.3	7 2.3	

The longest known duration of diverticulosis, uncomplicated, is 24 years.

Twelve patients, or 11 per cent, required 18 operative procedures for complications of diverticulitis. Only 3 patients having multiple attacks required surgery.

There were no deaths from diverticulitis in this series of 107 patients.

TABLE 7.—*Breakdown of Experience with Diverticulitis.*

No. cases		107
No. attacks		138
No. cases with multiple attacks		24
2 attacks	18	
3 attacks	5	
4 attacks	1	
No. patients operated on		12 (11%)
No. operations		18
Resections, primary	6	
Resections, secondary	1	
Colostomy	4	
Drainage	4	
Appendectomy	1	
Colostomy closure	2	
Known duration		428 yr.
Average duration since last attack		2.9 yr.
Patients operated on after multiple attacks		3.0 (12.5%)

DISCUSSION

Two cases of perforation of diverticulosis, without diverticulitis, recently have been reported.[4] Diverticulitis, therefore, is not necessary for complications.

The mortality rate in surgically treated diverticulitis is 2.3 to 3.5 per cent.[1, 3, 5, 9, 14] These are statistics which include those patients requiring emergency as well as elective surgery. Our surgical colleagues would like to reduce this mortality and the important surgical morbidity.[3, 5, 10, 14] They believe that reduction in mortality and morbidity could be accomplished with elective resection.

The usual complications of abscess, perforation, hemorrhage, obstruction, and fistula formation are clear-cut indications for surgery, with the possible exception of the first two. Ideally, surgical attack on diverticulitis is delayed until the inflammatory process is quiescent. In effect, the goal of medical management is the same, that is, to convert diverticulitis to diverticulosis. That such may be the case is exemplified by Mr. M. F., a 49 year old white man, complaining of pain of one week's duration, aggravated by ambulation, located in the left lower quadrant of the abdomen, sometimes severe and cramping but continuously present. Roentgen examination demonstrated the presence of diverticulitis with extrinsic pressure defect of an abscess. One month later, examination demonstrated the complete clearing of the pressure defect and return of lumen of bowel to normal caliber after medical treatment. This sequence occurred 3 times in the present series, in which cases no indication for surgery now exists.

Should indications for surgery include repeated attacks in the face of medical management and diverticulitis in patients younger than 50 years? The period of observation and number of patients in this series is inadequate to answer these questions specifically. However, there were no deaths in this series in which operation was done only for the aforementioned clear-cut complications. Only 12.5 per cent of the patients with multiple attacks required surgical approach, compared with 11 per cent for the total series of diverticulitis.

SUMMARY

A review of 1,197 cases of colonic diverticula is presented. This constitutes a 24.4 per cent incidence in 4,900 barium enema examinations.

There is little difference between the symptoms of office patients and hospital patients with diverticulitis except in severity.

Gross bleeding occurred in 9.3 per cent of the diverticulitis group. No massive hemorrhage occurred.

There is no primary link between diverticulitis and other diseases in this group.

In the limits of this study, medically treated diverticulitis patients have thus far lived an average of 2.9 years without subsequent attack.

The question regarding elective prophylactic surgery is raised and not answered with certainty. From the data presented it seems that in most instances there is little to be gained by electric surgery, and perhaps an occasional localized perforation or small abscess may be managed without surgery in some instances.

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Foods May Help Produce Goiter

Evidence that overconsumption of certain foods may lead to the development of goiter was reported by Dr. Monte A. Greer, Portland, Ore., at an October symposium at the University of Michigan Medical School, Ann Arbor, in cooperation with the National Vitamin Foundation. Dr. Greer said that high amounts of goitrin, a goiter causative compound, has been isolated in rutabaga, turnip, and certain other vegetables. Dr. Greer emphasized that ingestion of vegetables known to contain progoitrin has not yet been shown to be a significant factor in the etiology of goiter, but that this might be a possibility in the development of goiter in man.

Surgical Management of Chronic Nonspecific Ulcerative Colitis

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DURING the past decade incomparable advances have been made in the surgical treatment of chronic nonspecific ulcerative colitis. Fortunately, it has been a relatively rare surgical entity in the Southwest. A recent study[26] of the available records at Baylor University and Parkland Memorial Hospitals in Dallas indicates that the incidence of ulcerative colitis is increasing. Certainly, this is true from the surgeon's viewpoint since a greater number of patients with this disease are being subjected to surgery. At Parkland Memorial Hospital no ileostomies had been performed for ulcerative colitis prior to 1950 and only 3 subsequent to that time. Prior to 1950 records of only 2 ileostomies for ulcerative colitis could be found at Baylor University Hospital. Since 1950 approximately 30 patients have been subjected to ileostomy and concomitant or subsequent total or subtotal colectomy with or without combined abdominoperineal resection. More than half of these

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With chronic nonspecific ulcerative colitis, such indications as intractability, pseudopolyposis, carcinoma, severe anorectal complications, severe systemic manifestations, stricture of the colon or rectum, or obstruction warrant surgical intervention. The treatment of choice is usually total colectomy with simultaneous combined abdominoperineal resection and ileostomy. A new eversion type of ileostomy offers great promise.

operations have been performed during the past two years. The experience which has been gained from the management of 16 of these patients (2 of the cases being for major ileostomy revisions) will form the basis for this presentation, which will include a brief review of the historical background, indications for surgery, and present day surgical management of chronic nonspecific ulcerative colitis with emphasis on the revolutionary mucosal eversion type of ileostomy.

HISTORICAL BACKGROUND

Although ulcerative colitis is considered a relatively new surgical disease, according to Saundby[28] it was first mentioned as a disease entity by Wilks in 1859 and described in more detail by Wilks and Moxon[35] in 1875. White[34] first suggested diversion of the fecal stream by colostomy in 1895. Colotomy was performed by Keith[16] in 1895, appendicostomy by Weir[33] in 1902, and cecostomy by Boas[5] in 1903. These procedures were designed primarily for the instillation of medications and cleansing of the bowel rather than for diversion of the fecal stream. Garlock[14] gave credit to Howard Lillienthal for performing the first subtotal colectomy and ileosigmoidostomy in 1900. In 1913 J. Y. Brown[7] described a technique for ileostomy with complete division of the bowel and closure of the distal end. During the years from 1919 to 1925 Logan,[18] Yeomans,[36] and Strauss[29] performed colectomy and ileosigmoidostomy for ulcerative colitis while Payne,[21] Reinhoff,[24] and Jones[15] used ileosigmoidostomy for this disease. The first total colectomy of record was reported by Strauss, Freidman, and Block[30] in 1925.

It remained, however, for Rankin and Bargen[3, 4, 23] in 1930 to initiate the modern day surgical treatment of ulcerative colitis. They proved that the use of subtotal colectomy and ileostomy for the cure of ulcerative colitis and the rehabilitation of invalids suffering from this disease was feasible. Subsequent to that time there has been a rather widespread use of surgery in the treatment of ulcerative colitis, and the indications have become more standardized although some are still controversial at this time. There has been a marked decrease in the mortality following the surgical treatment of ulcerative colitis during the past 20 years. The decrease in the mortality is presented in table 1. At the present time the use of newer techniques in the construction of the ileostomy appears to have initiated a new era in the surgical treatment of chronic ulcerative colitis.

TABLE 1.—*Comparison of Mortality Rates for Ileostomy.*

Year	Author	Procedure	Mortality (%)
1932	Rankin	Emergency ileostomy	66
1932	Rankin	Elective ileostomy	50
1939	Bargen	Total ileostomies (185)	30 (6 mo.)
1941	Cave	Total ileostomies (34)	24
1947	Lahey	Total ileostomies (150)	18
1952	Lahey	Total ileostomies (102)	2

INDICATIONS FOR SURGERY

There is a difference of opinion in regard to the indications for the surgical management of chronic nonspecific ulcerative colitis. Pollard[22] stated recently that approximately 10 per cent of the patients with this disease at the University of Michigan were subjected to surgery. Cattell[8] remarked that, although treatment was initiated at the Lahey Clinic by the department of gastroenterology in all patients with this disease, approximately 40 per cent still required surgery. Perhaps the latter figures are not a fair index to the number of patients with this disease who must be subjected necessarily to surgery, since many patients are referred to the Lahey Clinic with the idea of surgery initially. Certainly, the percentage of patients who can be managed successfully by medical therapy varies widely, but the average appears to be somewhere in the neighborhood of 70 to 75 per cent. It should be stated emphatically that the treatment of nonspecific chronic ulcerative colitis is primarily medical. The medical treatment of this disease is highly specialized and is just as important as a special knowledge of its surgical management.

TABLE 2.—*Indications for Surgical Intervention in Chronic Nonspecific Ulcerative Colitis.*

- Definite.
  - Intractable disease.
  - Pseudopolyposis or polypoid formation.
  - Carcinoma.
  - Severe anorectal complications (multiple fistulas, rectovaginal fistulas, or severe abscesses).
  - Severe systemic manifestations (arthritis, pyoderma gangrenosum, hepatitis).
  - Stricture of the colon or rectum.
  - Obstruction.
- Controversial.
  - Acute severe fulminating disease.
  - Massive hemorrhage.
  - Impending subacute or acute perforation.
  - Segmental disease.

The indications for surgery may be divided into two categories: (1) definite and (2) controversial. These have been enumerated in table 2.

DEFINITE INDICATIONS

Opinions are more or less congealed in regard to the definite indications for surgical intervention in severe ulcerative colitis.

Intractability is difficult to define and is sometimes directly proportional to the ability, patience, and perseverance of the physician who is carrying out the medical treatment. In the severely ill group of patients treatment should be carried out jointly by the gastroenterologist or internist and a surgeon who has been trained specially in the surgical management of chronic ulcerative colitis. Surgery is indicated in any patient who has been incapacitated for normal activities or gainful occupation for long periods of time in spite of adequate medical management. One cannot place a definite period of time as a guide for surgical intervention since some patients may be incapacitated completely for a year and then completely rehabilitated. However, when a person has been ill with ulcerative colitis intermittently for a period of several years and then is incapacitated for three or four months of the preceding year, removal of the colon is indicated.

Although there is no definite evidence that pseudopolypoid disease is related to the formation of carcinoma in patients with chronic ulcerative colitis, in a group of 41 patients with carcinoma and ulcerative colitis the incidence of polyposis was 58.5 per cent.[27] It is impossible to distinguish between true adenomas, small carcinomas, and pseudopolyposis. Since the latter is a result of severe disease with destruction of the mucous membrane and subsequent healing, pseudopolyposis is considered a definite indication for surgical intervention.

Carcinoma which occurs concomitantly with ulcerative colitis has been almost uniformly fatal because of its highly malignant characteristics. Only a few instances of five year survivals have been reported in the literature. These have occurred primarily in patients in whom carcinoma was an incidental finding at the time of pathologic examination postoperatively. Lahey[17] has stated that approximately 30 per cent of the patients at his clinic who had had the disease for more than 10 years developed carcinoma. In a small group of patients who survived 10 years, Dukes[10] found the incidence of carcinoma to be almost 50 per cent.

In Bargen's[27] group of 41 patients with ulcerative colitis and carcinoma the average duration of the disease was 16.8 years. In one of our patients, a 26 year old white man who had had ulcerative colitis since the age of 9 years, 3 separate primary adenocarcinomas and 1 preinvasive carcinoma were present. In any patient with long standing ulcerative colitis, the presence of any lesion which possibly could be carcinoma is an indication for surgical intervention.

The other complications, which are listed under definite indications, usually are present in variable combinations, and the decision in regard to surgery is not so difficult. Severe anorectal complications and stricture formation are probably the most common in this group. Simple anorectal complications are not an indication for surgery since in many instances simple fistulas, fissures, and crypts may be excised during a quiescent stage with satisfactory healing. Attention should be called to that devastating complication, pyoderma gangrenosum, which frequently responds only to removal of the diseased bowel.

CONTROVERSIAL INDICATIONS

Adversity of opinion exists in regard to the institution of surgery for some of the more severe complications. This is particularly true of patients with acute fulminating ulcerative colitis. These should be divided into two categories, those with severe disease and those with moderately severe disease. Perhaps only 5 per cent of the acutely ill patients will fall into the severely ill category, and surgery is indicated in all of these patients. The criteria for deciding which patients should be placed in this group are indefinite. Surgery should be resorted to only after an adequate trial of medical therapy. The decision as to when this trial of medical therapy has been adequate is extremely difficult and should be reached jointly by the medical and surgical consultants. If a patient has not responded to medical treatment after a period of 7 to 10 days, continued treatment usually is of no avail and surgery should be instituted. The treatment of choice in these persons is ileostomy, total colectomy, and combined abdominoperineal resection. ACTH and cortisone may be helpful in inducing remissions in these patients in preparation for surgery.

Among surgeons it is a consensus that uncontrolled massive hemorrhage is a definite indication for surgical intervention. There are still some gastroenterologists and internists who think that this complication is treated best by conservative management. Again, the treatment of choice is ileostomy, total colectomy, and combined abdominoperineal resection.

The diagnosis of perforation or impending perforation of the colon in patients with fulminating disease is extremely difficult, and the decision as to surgical intervention must be made on an individual basis. It is impossible to lay down the criteria for the diagnosis. Surgery appears to be advisable when one is in a quandary as to the presence of frank perforation in the patient who is acutely ill with ulcerative colitis. The entire bowel should be removed as an emergency procedure. Crile and Turnbull[11] lost only 2 patients of 41 who fell into this category.

Segmental ulcerative colitis has not been encountered in this small series. There are some who believe that this is a questionable entity and that the entire bowel always is involved with certain segments having more advanced disease. Nevertheless, good

results have been reported following segmental resection and anastomosis in carefully selected cases. This is a relatively infrequent form of the disease.

RECENT ADVANCES IN TECHNIQUE

Subsequent to Rankin's demonstration that ileostomies and colectomies could be performed without a prohibitive mortality, the introduction of the Rutzen bag in 1937 was the most monumental advance in the surgical management of chronic ulcerative colitis. The use of this bag and its various modifications resulted in an entirely different outlook for the patient with a permanent ileostomy. During the next decade the surgical treatment of ulcerative colitis became somewhat standardized. Stage procedures were employed usually with ileostomy as the first stage, and subsequent subtotal colectomy, and later combined abdominoperineal resection. In many instances the diseased bowel and rectum were left in place for indefinite periods of time.

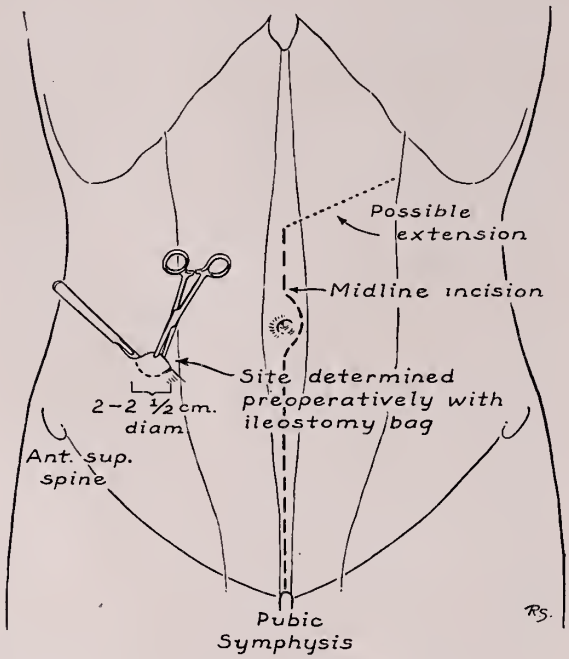

Fig. 1. Incision for total colectomy and site of ileostomy.

The first important of the most recent advances in the surgical management of the patient with ulcerative colitis was the introduction of simultaneous ileostomy and total colectomy (without abdominoperineal resection) in March, 1949, by Miller and his associates.[19] Almost simultaneously similar results were reported by Cave,[9] Bacon,[2] Waugh and Black,[32] Crile and Turnbull,[11] and Dennis.[13] In 1951 Ripstein[25] and also Crile and Turnbull[11] recommended the use of ileostomy and simultaneous colectomy with combined abdominoperineal resection. The latter authors also recommended the use of this procedure for the acute severe fulminating ulcerative colitis patients and those with massive hemorrhage. The one stage procedure has been employed in 10 of our patients with excellent results. In a recent panel discussion[20] in Philadelphia, members of the panel collectively accounted for more than 100 consecutive ileostomies with simultaneous total colectomy and combined abdominoperineal resection without mortality.

The next and possibly the greatest advance, which has simplified postoperative care, has been made in the technique of ileostomy construction. The mucosal eversion type of ileostomy was described by Brooke[6] in 1950. The advantages of this type of ileostomy were not recognized in this country until after Turnbull explained so brilliantly the mechanism of ileostomy dysfunction. The logic of his explanation was recognized immediately by those who had experience with ileostomies. To correct the dysfunction, which usually occurred after the seventh day from the serositis and induration of the ileostomy stoma, Turnbull[31] first recommended denuding the distal one-half of the ileostomy and everting the mucous membrane which was sutured to the skin in order more rapidly to mature the ileostomy. This soon resulted in a technique of maturation of the ileostomy at the time of the initial surgery and was called the mucosal-grafted ileostomy.[12] This consisted of denuding the distal one-half of the ileostomy stoma so that a cuff of mucous membrane could be turned over the exposed serosa and sutured to the skin. The full thickness eversion type of ileostomy which was recommended by Brooke is a much simpler procedure. A modification of this was described by Ault[1] and has been employed in 10 patients (2 ileostomy revisions) with excellent results. Only 1 patient has remained in the hospital more than 14 days. Obstruction of the terminal ileum occurred on the eighth postoperative day from adhesions at the line of suture of the pelvic peritoneum. This patient was discharged on the sixteenth postoperative day.

It is not possible to describe in detail the technique of total collectomy, combined abdominoperineal resection, and ileostomy, but this is not necessary since it has been done in other publications. However, a few pertinent comments should be made in regard to technique. A left paramedian incision has been used in most patients, and more recently a midline incision has facilitated opening and closing the abdomen. This is important not only because of the time saved in a long procedure, but also because it preserves the skin on both sides of the abdomen, which may be useful for future revision of the ileostomies which is often necessary. The entire colon is mobil-

ized down to the rectosigmoidal area, and then the ileostomy is constructed. If the patient is not doing well, the operation can be stopped at this point, but this has not been necessary in any patient. The details of the construction of the eversion type of ileostomy have been depicted in figures 1, 2, 3, and 4. In the past it has not been our policy to close the right colic gutter following ileostomy. Since 2 of our last 10 patients have developed volvulus with obstruction in less than one year following operation,

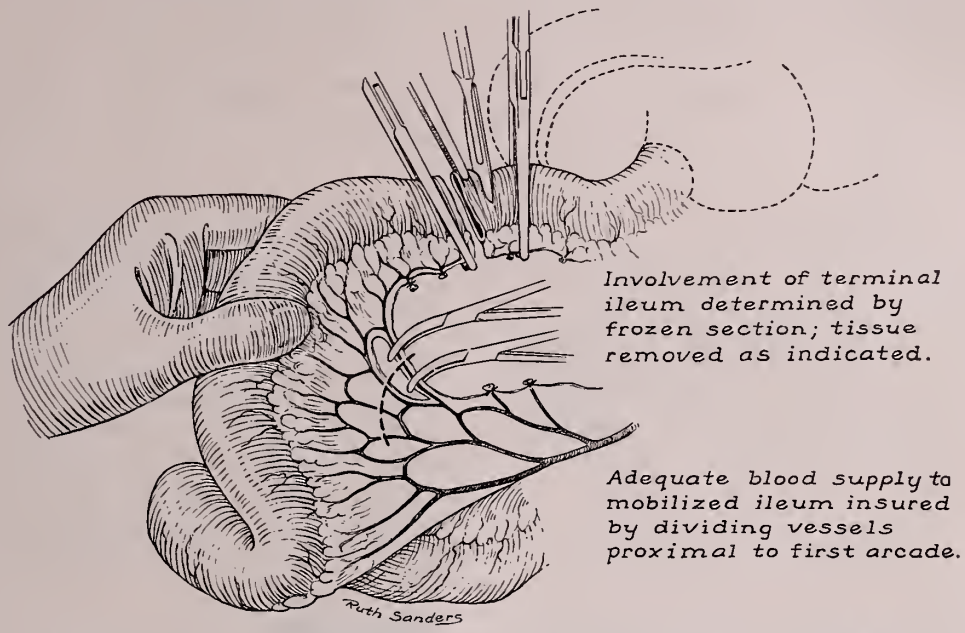

Fig. 2. Continuation of the eversion type of ileostomy: The ileum is prepared as noted in the drawing after the entire colon is mobilized down to the rectosigmoid.

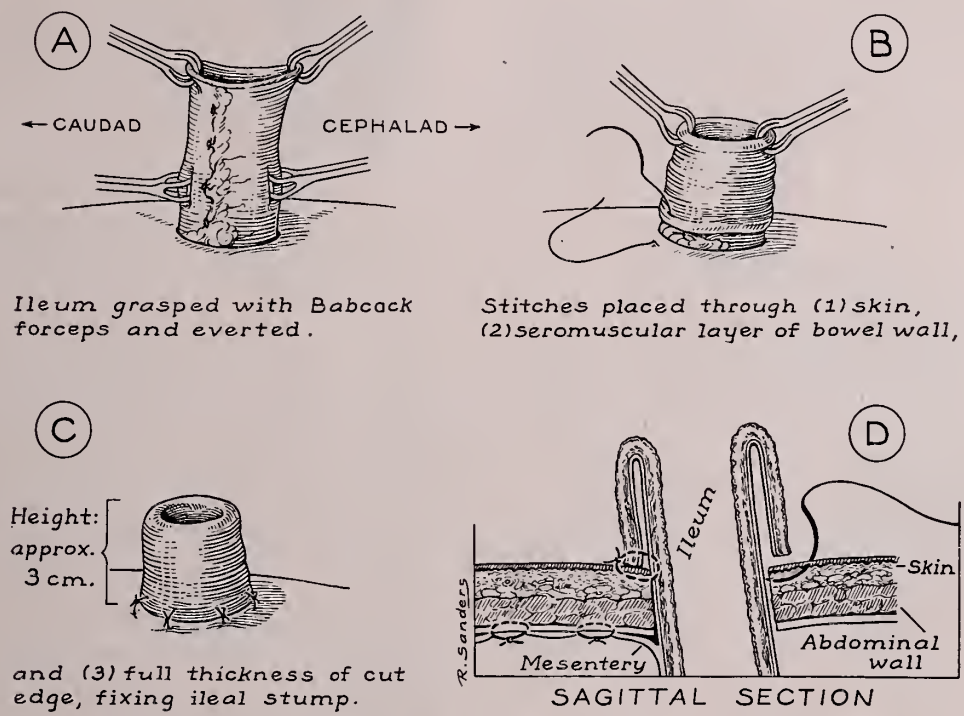

Fig. 3. Continuation of the mucosal eversion type of ileostomy: Small pieces of fascia are removed and cruciate incisions are made in the muscles of the abdominal wall to insure an adequate but snug opening of the ileostomy.

in the future unless the maneuver is exceedingly difficult because of edema of the mesentery of the small bowel, the gutter will be closed lateral to the ileostomy. It is extremely important to make an adequate opening in the abdominal wall. Portions of fasciae are removed, and cruciate incisions are made in the muscle and fasciae. After the ileostomy has

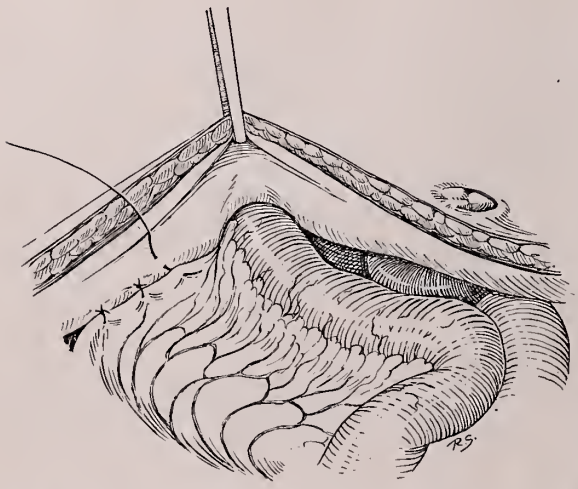

Fig. 4. Final step in the eversion type of ileostomy: The mesentery is attached to the abdominal wall. In view of the high incidence of volvulus, closure of the lateral gutter usually is indicated.

been constructed, the combined abdominoperineal resection is carried out. In the male, to prevent impotence, it is extremely important to remain close to the rectum and also preserve the hypogastric plexus. In 4 male patients there has been no disturbance of potency.

SUMMARY AND CONCLUSIONS

The historical background of the surgical treatment of chronic nonspecific ulcerative colitis has been reviewed.

The indications for surgery have been discussed briefly.

Advances in technique have been described with emphasis on the mucosal-eversion type of ileostomy.

At the present time it is a consensus that when surgery must be instituted for ulcerative colitis the treatment of choice is usually total colectomy with simultaneous combined abdominoperineal resection and ileostomy.

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A list of bibliographic references may be obtained from the author.

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Incidence of Psychoses in Texas, 1951-1952

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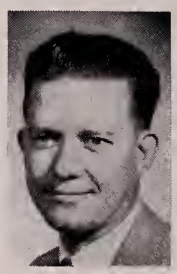
Galveston, Texas

STUDIES of the incidence of mental disorder for entire states have omitted patients obtaining diagnosis and treatment from psychiatrists in private practice, basing their rates entirely upon first admissions to hospitals.[3, 4, 7] Surveys that have included private patients have been confined largely to health districts, cities, or counties,[5, 8, 9] while some surveys at this level did not include private patients.[1, 2, 6] As a consequence, studies that omit private patients run a risk of socio-economic bias while those confining their range to smaller areas are extremely limited in the extent of generalizing to larger and more representative populations.



E. Gartly Jaco, Ph.D., associate professor of psychiatry (sociology) at the University of Texas Medical Branch, presented this paper for the Texas Neuropsychiatric Association in Galveston, April 22, 1956.

This preliminary report of a survey of psychoses in Texas suggests that the chances of becoming psychotic in this state differ within the population, by area, and by certain social characteristics.

This is a preliminary report of a survey, supported by the Russell Sage Foundation and the Hogg Foundation for Mental Hygiene, to estimate the incidence of psychosis in the population of Texas, and to determine the possible relationship of this extreme form of mental illness to an array of socioeconomic and demographic factors. Since analysis of the data is still going on, only some of the major findings can be given at this time.

The study was confined to include all inhabitants of the state of Texas who sought psychiatric treatment and care for a psychosis for the first time in their lives during the two year period of 1951-1952. Persons who were diagnosed as having a type of mental disorder other than a psychosis, or who were known to have received treatment at a time other

than during the study period, or who were transients in the state were discarded. Data were obtained from psychiatrists in private practice during this time, and from all of the private, Veterans Administration, city-county, and state mental hospitals in Texas. The states bordering Texas also were canvassed, and many patients were picked up who had received treatment out of the state.

HYPOTHESES

The major hypotheses studied were

1. The probability of acquiring a psychosis would not be random or equal within the population.
2. Inhabitants of different areas would exhibit different incidences of psychosis.
3. Persons with different social attributes or affiliations would have different incidences of psychosis.

If these hypotheses could be substantiated, then another purpose of the study would be to determine what particular social characteristics might be associated with psychotic persons in an attempt to explore the social etiology of mental disorders.

FINDINGS

The survey was initiated in March, 1955. As a result of remarkable cooperation from the psychiatrists and hospitals of Texas and the surrounding states, a total of 11,304 new psychotic cases were found for the two year period.

Data on the following factors were obtained: county and subregion of the patient's residence; rural-urban location; age; sex; major ethnic group; diagnosis; marital status; occupational class; education; length of Texas residence; and church affiliation. Several of the latter items of information were not as readily obtainable as the former.

Rates were computed for the 27 economic subregions of the state previously determined by the census bureau. Such areas are delineated on the basis of a homogeneous economic base. The original plan to use counties as the basic study area was abandoned because of the few cases found in some counties which allowed the possibility of unstable rates to occur in the less populated counties. Cases for the two year period were averaged into a more stable annual rate for the economic subregions.

Because of their potential sources of distortion, incidence rates were adjusted for the age, sex, and major ethnic (Anglo-American, Spanish-American, and nonwhite) distribution of the population within each of the subregions of the state. The "standard population" was the 1950 population of Texas.

GENERAL RATES

Texas is generating nearly 1 new psychotic case per year per 1,000 population, or 75 per 100,000 population per year. This rate is equivalent to the rate of first admissions to mental institutions for the United States for the same period. About 5 new functional psychotics are being diagnosed and treated per 10,000 population per year, 1 old age psychotic per 10,000 population each year, and nearly the same (about 1 per 10,000) for the organic psychoses. Males of Texas are becoming psychotic at a rate of 70 per 100,000 per year, while somewhat more females are at a rate of 78 per 100,000 per year. Texans are becoming functionally psychotic at an annual rate of 50 per 100,000 population, acquiring the old age psychoses at a yearly rate of 12 per 100,000, and becoming organically psychotic at an annual rate of about 9 per 100,000 population. Anglo-Americans in Texas are becoming psychotic at a rate of 82 per 100,000 per year, nonwhites at a rate of 57 per 100,000 per year, and Spanish-Americans at an annual rate of 42 per 100,000 population.

GEOGRAPHIC DISTRIBUTION

When standardized for age, sex, and ethnic group, highest average annual incidence rates for all psychoses were found to be highest along most of the Gulf Coast, extending westward to parts of central Texas. Lowest rates were found in west Texas, South Plains area, and the Dallas-Fort Worth subregion (fig. 1).

Availability to psychiatric facilities often has been

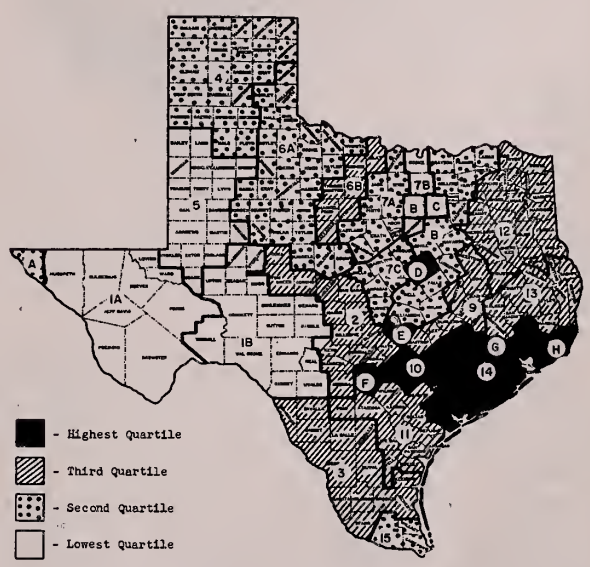


Fig. 1. Incidence of psychoses by rates adjusted for age, sex, and ethnicity by economic subregions, Texas, 1951-1952.

regarded as a source of bias in incidence rates for areas. A rank-order correlation of .40 was found between the number of psychiatrists in private practice in the subregions and the rate in such areas. Although this is a significant correlation in terms of stability, it is obviously not sufficient to account for most of the distribution pattern. A correlation of only .38 was obtained between the incidence rates and number of psychiatric beds for the subregions, which was statistically insignificant. Consequently, the pattern of distribution of these rates cannot be explained sufficiently in terms of the availability of psychiatric facilities in different parts of the state.

DISTRIBUTION BY DIAGNOSIS

The functional psychoses, schizophrenia, affective reactions, involutional, and paranoid states, were found to be highest in the Gulf Coast, east Texas, extreme Rio Grande Valley, and the Hill Country. The west and north Texas subregions had the lowest incidence of these disorders (fig. 2).

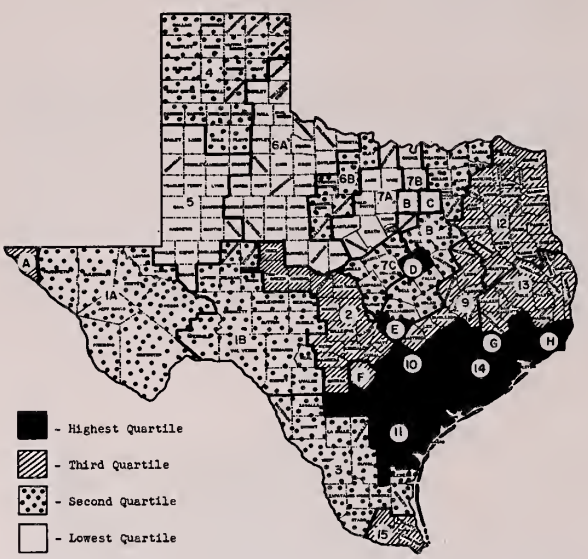


Fig. 2. Incidence of functional psychoses by adjusted rates by economic subregions, Texas, 1951-1952.

The second diagnostic grouping consisted of cerebral arteriosclerosis and senile dementia, the so-called old age psychoses. Figure 3 shows that the pattern of distribution of these disorders varied considerably from that of the functional psychoses. Highest rates were found in the Panhandle, South Plains, El Paso County, the Valley, and parts of north and central Texas, while the "piney-woods" cut-over area of east Texas, Harris and Jefferson Counties, and the Edwards Plateau subregions exhibited the lowest incidence.

For the organic psychoses, including toxic and paretic psychoses, the picture again shifted markedly compared to the other disorders. The entire Gulf Coast, Valley, and southern parts of the state, along

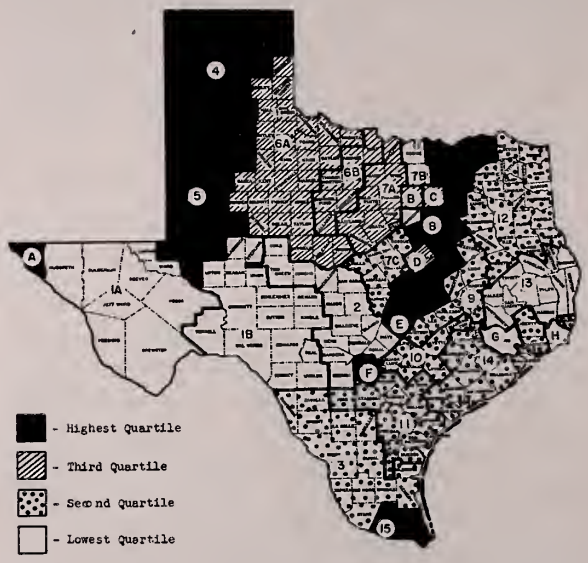


Fig. 3. Incidence of old age psychoses by adjusted rates by economic subregions, Texas, 1951-1952.

with Travis and McLennan Counties, had the highest rates. The Hill Country and most of west, north, and east Texas had the lowest incidence (fig. 4).

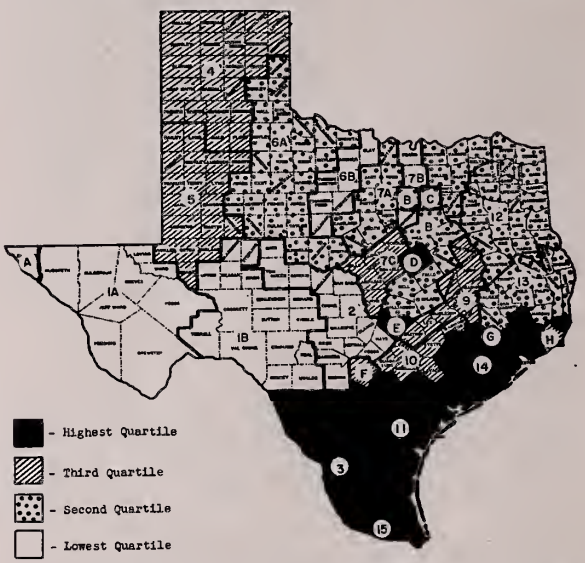


Fig. 4. Incidence of organic psychoses (brain syndromes) by adjusted rates by economic subregions, Texas, 1951-1952.

The fact that the distribution of these three major categories of psychoses differed remarkably around the state indicates that different factors seemingly affect the onset and seeking of treatment for these types of mental disorders.

AGE AND SEX

Age was positively correlated with incidence of psychoses, the rate increasing with advancing age. Females exhibited a higher total rate than males. Females had higher rates than males for all age levels up through age 54. After age 55, the rate for males was higher than for females of the same ages. These factors are summarized in table 1.

TABLE 1.—*Annual Incidence Rates of Psychoses by Age and Sex, per 100,000 Population, Texas, 1951-1952.*

Age Groups	Males	Females	Total
Under 15	1.1	1.0	1.1
15-24	43.8	48.2	46.0
25-34	92.5	119.6	106.2
35-44	104.5	129.4	117.0
45-54	113.6	136.4	124.9
55-64	138.4	127.2	132.8
65+	188.4	140.8	163.4
Adjusted rate:	69.6	77.7	73.6

ETHNIC DIFFERENTIALS

The Anglo-American population exhibited higher rates than Spanish-American and nonwhite populations in Texas (table 2). The Spanish-American group showed the lowest incidence of all three major ethnic groups, with the nonwhites falling in between. Both Anglo-American males and females showed a consistent increase in rates with advancing age, with the females having higher rates until age 55 and beyond. Spanish-American females also exhibited a higher total incidence than Spanish-American males, and for all age levels except 15-24 and 55 and over. The outstanding exception was the higher total incidence for nonwhite males over nonwhite females. Rates at various age levels for both nonwhite males and females was erratic, with the males higher than females at ages 15-44 and 55 and older.

For the males, the Anglo-Americans showed higher rates than Spanish-American and nonwhite populations, except between the ages of 15 and 34 when the nonwhite males had the highest rates. The nonwhite females exhibited higher rates under age 14 than the Anglo-American and Spanish-American females. The Anglo-American females had the highest rates of the three ethnic groups of females at all other ages.

The distribution of psychotics by major ethnic affiliation also varied markedly in the state. Highest incidence of all psychoses for the Anglo-American cases occurred along the Gulf Coast, in south and east Texas, and in the Hill Country. Lowest incidence was found in west and north central Texas. For the Spanish-American patients, highest rates were found in all of east Texas and most of the north-central region while lowest rates were found to be scattered in the Big Bend area, north-central strips, and central and southern parts of the state. Highest rates for the nonwhite population occurred in the entire west Texas region from the Panhandle down to the Big Bend country and scattered areas in north-central Texas, and Travis and Harris Counties. Lowest rates for the nonwhites were found in most of the Gulf Coast, east Texas, the extreme Valley, Edwards Plateau, and the Hill Country. Statistical correlations found for the rates of the subregions between the Anglo-American and Spanish-American psychotics was .18; between Anglo-Americans and nonwhites, –.07; and between Spanish-American and nonwhites, –.03; all being insignificant. These differentials suggest strongly the impact of subcultural groups upon the incidence of psychosis.

OCCUPATION

Occupational status at the time of onset of psychosis was found to be a significant differential between categories of work and between the sexes. By rates standardized for age, sex, and ethnic affiliation, the unemployed exhibited the highest total incidence. Among those employed, those in the professional and semiprofessional occupations showed the highest rate, followed by those employed in service, manual work, clerical and sales, agricultural, and finally managerial, official, and proprietary occupations. The unemployed exhibited the highest rate for both males and females,

TABLE 2.—*Annual Age-Specific Incidence Rates of Psychoses by Sex and by Major Ethnic Groups, per 100,000 Population, Texas, 1951-1952.*

Age Groups	Males			Females		
	Anglo	Spanish	Nonwhite	Anglo	Spanish	Nonwhite
Under 15	0.7	0.2	0.3	0.9	0.5	2.3
15-24	43.1	34.8	58.7	52.4	31.7	46.1
25-34	97.6	55.3	98.6	131.0	79.9	88.2
35-44	114.5	57.3	81.2	146.9	71.4	70.6
45-54	127.7	58.3	68.2	154.3	65.2	77.2
55-64	146.7	82.5	118.7	140.1	62.1	74.0
65+	206.0	80.7	138.9	155.3	64.9	85.8
Adjusted rate:	76.3	39.8	61.4	88.3	44.4	51.9

particularly if the latter were unmarried. Among those employed, the professionals and semiprofessionals showed the highest rate for both sexes. However, the remaining occupational categories differed in rank-order between the sexes (table 3). Whereas for the males agricultural workers ranked next, this mode of work ranked next to the last for the females. For the males, manual workers came next, followed by those in service, clerical and sales, and finally managerial, official, and proprietary occupations. For the females, service workers came second, followed by those in clerical and sales, manual work, agricultural, and lastly managerial, official, and proprietary jobs. An insignificant correlation was found between the sexes in the order of incidence of these modes of work, indicating that working in different occupations affects the sexes differently in their chances of becoming psychotic.

TABLE 3.—*Annual Adjusted Incidence Rates of Psychoses by Occupational Class by Sex, per 100,000 Population, Texas, 1951-1952.*

Rank-Order	Males Occupational Class	Adj. Rate	Rank-Order	Females Occupational Class	Adj. Rate
1	Unemployed	348	1	Unemployed and unmarried	3,863
2	Professional and semiprofessional	139	2	Professional and semiprofessional	159
3	Agricultural	122	3	Service	103
4	Manual work	119	4	Clerical and sales	101
5	Service	111	5	Manual work	87
6	Clerical and sales	97	6	Agricultural	72
7	Managerial and official	58	7	Managerial and official	55

These rates were computed in terms of members of the labor force. If housewives are included in the category of occupations for females, the rank-order is altered. The annual rate for housewives was 116 per 100,000, placing this category in third place on the rank-order scale for women, higher than five out of the six classes of work.

MARITAL STATUS

The rates for both sexes were highest for the divorced, followed in order by the separated, single, widowed, and married. A significant correlation of .90 was found between the sexes in incidence of psychosis by marital status. The only difference between the sexes was the higher rate for divorced males than females and the higher rate for separated females than males (table 4).

Consequently, work and marriage apparently affect men and women differently in terms of becoming psychotic in Texas. Further analyses of these and other sociological data are continuing and lie beyond the purview of this paper.

TABLE 4.—*Annual Adjusted Incidence Rates of Psychoses by Marital Status by Sex, per 100,000 Population, Texas, 1951-1952.*

Rank-Order	Males Marital Status	Adj. Rate	Rank-Order	Females Marital Status	Adj. Rate
1	Divorced	307	1	Separated	254
2	Separated	225	2	Divorced	240
3	Single	223	3	Single	179
4	Widowed	114	4	Widowed	107
5	Married	62	5	Married	92

SOURCE OF DIAGNOSIS AND TREATMENT

Forty-six per cent of the patients included in this survey went to public supported institutions, such as city-county, Veterans Administration, and state, for diagnosis and treatment of their psychoses. Of the entire patient population, 56 per cent of the males went to these public supported hospitals in contrast to 38 per cent of the females who sought such care. In terms of ethnic groups, 39 per cent of the Anglo-American patients obtained public care, compared to 73 per cent of the Spanish-Americans, and 95 per cent of the nonwhite psychotics. The city-county hospitals treated 4 per cent of these cases, the Veterans Administration 7 per cent, and the state hospitals 36 per cent. Three per cent of the Anglo-American psychotics, 2 per cent of the Spanish-American, and 12 per cent of the nonwhite went to city-county hospitals. Going to Veterans Administration hospitals were 6 per cent of the Anglo-American patients, 3 per cent of the Spanish-American, and 11 per cent of the nonwhite patients. Thirty per cent of the Anglo-American, 68 per cent of the Spanish-American, and 72 per cent of the nonwhite psychotics went to state hospitals for care. Consequently, if this survey had been confined only to cases hospitalized in public supported institutions, a considerable bias in rates by such factors as sex, socio-economic status, and ethnic groups would have occurred.

SUMMARY AND CONCLUSION

A survey was made of all patients who were residents of Texas at the time of diagnosis and treatment for psychoses for the first time in their lives during 1951-1952. Annual incidence rates were computed for the state and for its 27 economic subregions by

age, sex, major ethnic group, diagnostic category, occupation, and marital status. Three major hypotheses were tested: (1) The probability of acquiring a psychosis would not be random or equal within the population of Texas. (2) Inhabitants of different areas would exhibit different incidences of psychosis. (3) Persons with different social attributes or affiliations would have different incidences of psychosis.

Results indicated that incidence rates of psychoses varied geographically, and with age, sex, ethnic groups, diagnosis, occupation, and marital status. The annual rate of 75 new psychotics per 100,000 population is regarded somewhat lower than the national rate. Females showed a higher incidence than males; Anglo-Americans higher than the nonwhite population, which, in turn, was higher than the Spanish-American ethnic group. Anglo-American and Spanish-American females had higher rates of psychoses than their corresponding males, while nonwhite males had a higher incidence than nonwhite females. Rates increased with advancing age. The unemployed and professional and semiprofessional occupations exhibited highest rates for modes of work while divorced males and separated females had highest rates in terms of marital status. Differentials were also found in sources of psychiatric treatment and care.

The conclusion, therefore, seems warranted from these findings that all of the major hypotheses have been substantiated, in that the chances of becoming psychotic in Texas differ within the population, by area, and by certain social characteristics. Although further research is needed before more definitive conclusions can be reached, these data suggest that the psychoses possibly have a social aspect to their etiology, in addition to the more commonly regarded neurophysiologic and psychologic factors.

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CASE REPORTS

Megaloblastic Anemia Associated With Intestinal Anastomoses and Strictures

Report of 2 Cases

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THE PRIME PURPOSE of this paper is to reemphasize that megaloblastic anemia may result from certain anastomoses involving the small intestine and from strictures. Although strictures of the

Dr. Marjorie J. Williams, of the Laboratory Service, Veterans Administration Center, Temple, presented this paper for the Section on Clinical Pathology, Texas Medical Association Annual Session, Galveston, April 24, 1956.

Megalablastic anemia may result from strictures or from injudicious surgical anastomoses involving the small intestine. Megalablastosis seems to occur most frequently when the ileum is divided in its upper portion and the proximal end is anastomosed sideways to the transverse colon, the distal portion and right colon remaining in situ. Two cases of anemia resulting from anastomosis with stagnation are reported.

small intestine have multiple causes, the majority of anastomoses are man-made. Therefore, it is important that surgical procedures involving the small intestine be carried out in such a manner that the possibility

of resultant megaloblastic anemia may be minimized. Both entero-enterostomies and enterocolostomies have produced this type of anemia, and it appears that megaloblastosis occurs most frequently when the ileum is divided in its upper portion and the proximal end is anastomosed sideways to the transverse colon, with its distal portion and the right colon remaining in situ.[2,7,8,10,12,13] In these instances, stagnation occurs in both the by-passed terminal ileum and in the blind pocket lying either proximal or distal to the anastomosis. The situation may be complicated by malabsorption of nutriments owing to the by-passing of much of the small intestine. However, resection of large amounts of small intestine with end-to-end anastomosis does not usually produce megaloblastic anemia.[5]

About 75 cases of megaloblastic anemia due to strictures and anastomoses affecting the small intestine have been recorded.[2,7,8,10,12,13] It is of interest that strictures, frequently tuberculous in origin, predominated among the earlier cases and surgical anastomoses among the more recent. Patients with this type of anemia superficially resemble those with classical pernicious anemia. Among the common characteristics are macrocytic anemia, megaloblastic bone marrow, glossitis, and disease of the nervous system.[4] However, definite differences are apparent. In the majority of cases in the enteric group, there are conspicuous gastrointestinal symptoms; in about one-half, free hydrochloric acid is present in the gastric secretion.[1,10] In addition, the anemia may occur at an age younger than is usual with Addisonian pernicious anemia. The entity, megaloblastic anemia due to anatomic lesions of the small intestine, can also be distinguished from sprue as there may or may not be an increased amount of fat in the stools, and this factor bears no constant relation to the anemia.[10] In addition, blood sugar levels and glucose tolerance curves are usually normal.[10]

The mechanisms whereby strictures or anastomoses of the small intestine produce megaloblastic anemia have not been fully elucidated. The disease has been produced experimentally by Cameron and his associates.[3] These workers, using rats, formed cul-de-sacs in the upper or middle third of the small intestine which were self-filling but not self-emptying, and only when stagnation occurred in the cul-de-sacs did megaloblastic anemia ensue. The rats responded to treatment with any one of the following therapeutic agents: vitamin B_{12}, liver extract, folic acid, and Aureomycin, the last two drugs being the most effective. Toon and Wangensteen, using a similar experimental procedure, found that daily oral administration of Aureomycin prevented the development of anemia.[11]

The consensus of workers in this field is that invasion of the small intestine by organisms usually restricted to the colon plays an essential role in the production of this type of megaloblastic anemia.[3,10,13] This invasion may occur either directly, through a communication between the small intestine and the colon, or by way of the blood stream. Areas of stagnation in the small intestine, such as dilated segments proximal to strictures or blind pockets, are particularly susceptible to this change in bacterial flora. The presence of such organisms in the small intestine apparently serves in some manner to divert vitamin B_{12} and/or folic acid from the host. It is possible that this diversion may occur as a direct result of the replacement of the normal flora, which under ordinary conditions may synthesize hemopoietic materials. It is also possible that the abnormal flora may lead to the evolution of a toxin which interferes with normal hemopoiesis. Evidence for the presence of such a toxin in the serum of patients with classical pernicious anemia has been produced by two independent groups of investigators.[6,9] These workers found that the addition of serum from cases of pernicious anemia to normal marrow growing in culture prevented maturation in the erythropoietic series. Thompson and Ungley have demonstrated a similar substance in the serum of 1 case of megaloblastic anemia due to intestinal disease.[10]

Witts has concluded that there is kinship between all types of megaloblastic anemia, and that this can be expressed by the following formula:[14]

$$\frac{\text{Hemopoietic}}{\text{Factor}} = \frac{\text{Food Factor} + \text{Gastric Factor}}{\text{Intestinal Factor}}$$

In anemias due to enteric lesions, there may be either production of a toxic factor or impairment of synthesis of hemopoietic factors; in pernicious anemia, the gastric factor is reduced; and in nutritional megaloblastic anemia, the food factor is decreased. It should be noted that there is an inverse relation between the hemopoietic factor and the intestinal factor. Witts has suggested that further study of the enteric group may be fruitful in throwing light on the whole group of megaloblastic anemias.

Treatment of patients with megaloblastic anemia due to intestinal anastomoses or strictures is not completely satisfactory.[1,2,10] The majority are improved by surgical alleviation of the intestinal stagnation, but supplemental therapy with vitamin B_{12} and/or folic acid is frequently required.[7,10] Unfortunately, surgical correction often necessitates removal of large segments of bowel, with subsequent poor absorption of hemopoietic substances. Some cases may be greatly improved or cured by the administration of parenteral vitamin B_{12} alone, but the response to this drug is usually not so good as in pernicious anemia.[10] Therapeutic success due to the administration of Aureomycin or Terramycin alone has been reported also.[8]

CASE REPORTS

Two personally studied cases of megaloblastic anemia considered to be due to anastomoses affecting the small intestine will be described briefly.

CASE 1.—A 16 year old white boy sustained a gunshot wound in the abdomen in 1926, necessitating surgical repair of the gastrointestinal tract. He remained well for the ensuing 14 years until, in 1940, he had an attack of intestinal obstruction requiring surgical intervention and the removal of a short segment of small intestine. A similar episode occurred six years later. In 1950, following repeated attacks of abdominal pain, a laparotomy was performed and several adherent, partially obstructed loops of small intestine were removed, and a jejunocolic anastomosis was constructed. Up to this time, there was no significant degree of anemia. Following this procedure, the abdominal discomfort was relieved, but the patient developed weakness and easy fatigability and had frequent loose stools.

In 1951, the patient entered the Veterans Administration Center, Temple. It was shown that he had a normocytic, slightly hypochromic anemia, thought to be due to malabsorption from the intestinal tract, and intravenous iron was administered. After four days of such therapy, severe glossitis developed; the administration of intravenous iron was discontinued, and medication with vitamin B_{12} and oral iron was substituted. A reticulocytosis developed promptly and was followed by an increase in red cells and hemoglobin. There was no free hydrochloric acid in the gastric secretions, and the stools contained normal quantities of fat. After discharge, the patient continued taking vitamin B_{12} (30 micrograms per week) and folic acid (20 mg. twice a week).

Eighteen months later, in October, 1952, he reentered the hospital with complaint of diarrhea and was found to have a mild macrocytic anemia. He was subjected to exploratory surgery, and the jejunocolic anastomosis was identified. There were two blind segments of small intestine, namely, the terminal ileum and a dilated blind pocket of jejunum distal to the anastomosis, the latter being self-filling but not self-emptying (fig. 1). The anastomosis was taken down, and an end-to-end entero-enterostomy was performed. Treatment with hematinics was discontinued.

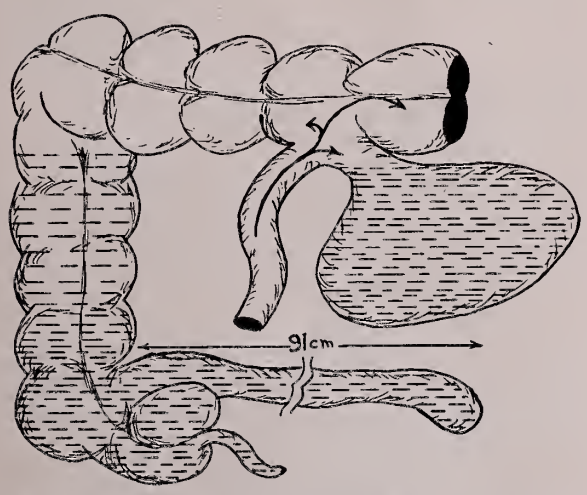

Fig. 1. Drawing demonstrating the ileocolic anastomosis and the two blind segments of ileum in case 1.

From October, 1952, until November, 1954, the patient remained well and had no significant degree of anemia. At the end of this period, there was moderate glossitis with minimal macrocytic anemia. Folic acid and vitamin B_{12} therapy were reinstituted to alleviate the glossitis and have been maintained. The patient is currently well (table 1).

TABLE 1.—*Hematologic Studies in Case 1.*

Date	R B C ($x 10^6$)	Hb. (Gm. %)	Hemat. (%)	Remarks
Mar. 1951	3.2	8.0	30	Admission
Apr. 1951	4.5	13.0	N.D.	B_{12} therapy
Oct. 1952	3.8	13.5	40	Readmission & B_{12} therapy
Nov. 1952		Surgical Correction		
Feb. 1953	4.5	15.5	47	No therapy
Jan. 1954	4.9	14.7	45	Glossitis

This patient is considered to fulfill the criteria for the diagnosis of megaloblastic anemia due to an injudicious surgical anastomosis of the small intestine with stagnation. In addition, there was malabsorption due to by-passing of much of the small intestine. Despite the achlorhydria, it is considered that classical pernicious anemia can be excluded, since the elimination of intestinal stagnation completely alleviated the anemia for a period of 18 months. It is of interest to note that at the time of the first admission, the megaloblastosis was masked by a concomitant iron deficiency and only became manifest following the administration of intravenous iron.

CASE 2.—A poorly nournished white man, aged 34 years, entered the Veterans Administration Center in 1951, giving a history of gastrointestinal symptoms extending over a period of 10 years. He suffered with alternating periods of constipation and diarrhea, frequently associated with severe abdominal cramping pain.

In 1941, he had had exploratory surgery, and 8 inches of terminal ileum had been resected. At that time, a diagnosis of regional enteritis was established. The symptoms persisted, and in 1947, another laparotomy was performed and the diseased area in the distal ileum by-passed by an entero-enterostomy. In 1948, surgical intervention again proved necessary, and an ileotransverse colostomy was constructed.

In 1951, on the patient's admission to this hospital, there were persistent abdominal symptoms. There was a moderately severe, slightly macrocytic hypochromic anemia, and study of aspirated sternal marrow demonstrated megaloblastosis. Free hydrochloric acid was present in the gastric secretions. Parenteral liver extract was administered and produced a reticulocytosis followed by a satisfactory rise in red cell count and hemoglobin level. At that time, the abdomen was explored surgically, and it was found that there was an ileotransversostomy with two dilated blind segments of ileum, one proximal to the anastomosis and the other in continuity with the cecum (fig. 2). Changes indicative of regional enteritis were identified in both of these segments. The anastomosis was taken down, and the terminal ileum, the right colon, and two-thirds of the transverse colon were resected; an end-to-end ileocolostomy was constructed. The patient was discharged in good condition, and no further hematinics were administered.

He remained well for 18 months when he had an attack of "flu," followed by severe persistent diarrhea. On admis-

sion, it was found that he had a moderately severe macrocytic hypochromic anemia. Parenteral vitamin B_{12} therapy was instituted and produced a satisfactory response. He was discharged with instructions to take an oral vitamin B_{12} preparation daily.

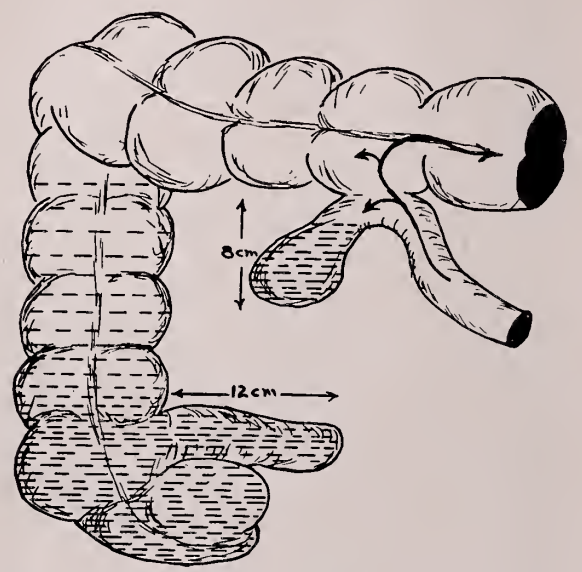

Fig. 2. Drowing demonstrating the ileocolic onostomosis and the two blind segments of ileum in case 2.

Since that time, the patient has remained fairly well. He takes vitamin B_{12} orally each day, and a slight normocytic anemia persists (table 2).

TABLE 2.—*Hematologic Studies in Case 2.*

Date	RBC ($x 10^6$)	Hb. (Gm. %)	Hemat. (%)	Remarks
July 1951	2.9	7.5	29	Admission
Aug. 1951	4.8	14.5	53	Liver extract therapy
Sep. 1951		Surgical Correction		
June 1952	4.3	13.0	44	No therapy
Feb. 1953	1.4	6.0	22	Flu & diarrhea
Mar. 1953	4.5	16.0	52	Parenteral B_{12}
Sep. 1954	4.2	12.5	42	Oral B_{12}

This case fulfills the requirements for the diagnosis of megaloblastic anemia due to intestinal anastomosis with stagnation. Both classical pernicious anemia and sprue can be excluded, as free hydrochloric acid was present in the gastric secretions, and there was no excess fat in the stools. The anemia was initially relieved by surgical correction, but vitamin B_{12} therapy was needed later.

SUMMARY

The entity of megaloblastic anemia due to stagnation in the small intestine has been discussed briefly, and 2 personally studied cases have been reported. It is recognized that malabsorption due to by-passing of much of the small intestine may have contributed to the production of anemia in these cases. Attention is directed to the fact that surgical procedures on the small intestine shoull be carried out in such a manner that stagnation does not occur and that unnecessary short-circuiting of the small intestine is not produced. This entity should be distinguished from Addisonian pernicious anemia and from sprue.

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"Do-It-Yourself" Activities Kill More Men Than Women

Do-it-yourself activities are responsible only to a very minor extent for the fact that home accidents kill about twice as many men as women at the main working ages. Victims of do-it-yourself accidents included men who fell from ladders, roofs, or scaffolds while painting the exterior of a house, shingling or repairing a roof, or adjusting or installing television aerials.

Statisticians of the Metropolitan Life Insurance Company report that only about 6 per cent of the company's male policyholders aged 15 to 64 who died in home accidents during 1953 and 1954 were fatally injured while engaged in repair, maintenance, or improvement work.

Almost every type of accident in and about the home took a higher death toll among men than among women. Falls, fires, gas poisoning, and firearms were leading causes of deaths.

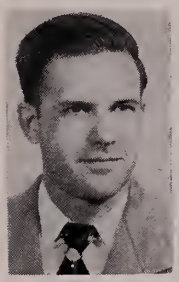
Endometriosis of The Sigmoid Colon

Report of 10 Cases Including 2 Cases of Concomitant Endometriosis and Carcinoma

CHARLES L. GREEN, M. D.; FLAVIUS L. AUSTIN, JR., M. D.; and JOHN L. GOFORTH, M. D.

Dallas, Texas

THE OCCURRENCE of ectopic endometrial tissue in the female pelvis and reproductive organs has long been recognized as a relatively common finding; however, the importance of endometriosis as a cause of obstruction of the sigmoid colon has not been sufficiently emphasized. Sutler[4] stated that 8 to 15 per cent of all women have pelvic endometrosis, and of these approximately 25 per cent have involvement of the rectum or sigmoid colon. From this it would seem that from 2 to 4 per cent of all women may have rectal or sigmoidal endometriosis to some degree during active menstrual life.



Dr. Charles L. Green and his coauthors are from the Departments of Pathology, St. Paul's Hospital and the University of Texas Southwestern Medical School. The paper was presented for the Section on Clinical Pathology, Texas Medical Association Annual Session, Galveston, April 23, 1956.

Endometriosis as a cause of obstruction of the sigmoid colon is of more importance than has been emphasized. The similarity of symptoms and radiologic findings in endometriosis and carcinoma of the sigmoid suggests the value of frozen section study to prevent unnecessary surgical procedures. Ten cases of endometriosis of the sigmoid colon, 2 of them with coexistent primary carcinoma of the colon, are reported.

In reviewing the pathology files of St. Paul's Hospital for a five year period extending from March, 1951, to March, 1956, we find that endometriosis appeared in the diagnosis of approximately 6 per cent of all sigmoid colons removed from females. Since endometriosis mimics the clinical picture of carcinoma but is a benign lesion, it presents a serious diagnostic problem and justifies an important place among the benign lesions of the colon.

With few exceptions, endometriosis of the large bowel is confined to the rectum and sigmoid. The rectum is more frequently involved than the colon, but because lesions of the sigmoid are more difficult to examine adequately, more frequently cause intestinal obstruction, and are more often misdiagnosed as amebiasis, inflammation, or carcinoma, this paper will be confined to a consideration of sigmoidal endometriosis rather than the more common rectal lesion. Following are summarized 10 cases of endometriosis of the sigmoid colon which illustrate the more common clinical symptoms. They are arbitrarily arranged into four groups in order to correlate the pathologic lesion with the clinical and radiologic findings.

CASE REPORTS

PRIMARILY SEROSAL INVOLVEMENT

CASE 1 (courtesy the Samuell Clinic).—A white woman, aged 32, para 0, gravida 0, offered as her chief complaint low back pain. The patient gave a history of dysmenorrhea and menorrhagia for the past eight years. For about six months she had had intermittant abdominal pain of the same type which she experienced at the onset of a menstrual period. This pain, however, occurred irregularly and was not always associated with her periods. Physical examination revealed a small, thin woman in no acute distress. The examination was negative except for a tender right pelvic adnexal mass approximately 5 cm. in diameter. Upper and lower gastrointestinal roentgen-ray studies were negative. A laparotomy revealed a 7 by 5 by 3 cm. left ovary which contained multiple endometriosis cysts. A 2.5 by 2.5 by 3 cm. endometrial implant was present on the serosal surface in the midportion of the sigmoid colon.

CASE 2.—A white woman, aged 38, para 0, gravida 0, presented a history of dysmenorrhea for 10 years and menorrhagia for the past two years. Physical examination was negative except for an enlarged nodular uterus. No radiologic studies were made. Laparotomy revealed a nodular leiomyomatous uterus and endometriosis of both ovaries and the pelvic peritoneum, as well as numerous small implants on the serosa of the sigmoid colon (fig. 1). Many fibrous adhesions were found throughout the pelvis.

CASE 3.—A white woman, aged 46, para 2, gravida 3, gave no significant clinical history pertaining to endometriosis. Several bluish nodules measuring 2 by 1 by 0.5 cm. were removed from the serosa of the midportion of the sigmoid colon during total hysterectomy for leiomyomas of the uterus. Microscopic examination of these nodules showed endometriosis, and in addition, several small foci were found in the left ovary.

CASE 4 (courtesy the Samuell Clinic).—A white woman, aged 42, para 0, gravida 0, complained chiefly of severe lower abdominal cramping pain and of low back pain with the onset of menses. For about 12 years the patient had had dysmenorrhea and irregularity of menstrual periods. In addition, she had been unable to become pregnant. For the past eight months she had been incapacitated by excruciating pain for a period of four to seven days during each menstrual period. For about six months she had noted

mild intermittent diarrhea without tarry or bloody stools. Physical examination revealed bilateral pelvic adnexal masses and nodular rectovaginal septal masses. A radiologic study of the lower gastrointestinal tract showed an irregularity of the serosa of the lower sigmoid without distortion of the

Fig. 1. Case 2. Photomicrograph showing an endometrial implant on the serosa of the sigmoid colon. Hematoxylin and eosin stain. x 18.

mucosal pattern (fig. 2). At laparotomy there were bilateral hemorrhagic endometriosis cysts of both ovaries, diffuse pelvic adhesions, and adhesions on the serosal surface of the sigmoid colon. Biopsies of these adhesions and of a mass in the rectovaginal septum showed endometriosis.

Fig. 2. Case 4. Roentgenogram showing involvement of the bowel wall by endometriosis.

PRIMARILY MUSCLE LAYER INVOLVEMENT

CASE 5 (courtesy Dr. O. W. Gibbons).—A white woman, aged 32, para 0, gravida 0, gave as her chief complaint diffuse cramping abdominal pain. For a period of six months the patient had had episodes of generalized cramping, abdominal pain, and nausea with vomiting on one occasion. These attacks lasted from one to four days. The past history was noncontributory except for extended hormone therapy for sterility. There was no history of rectal bleeding, but there had been occasional episodes of obstipation alternating with diarrhea. Physical examination was essentially negative, and no pelvic masses were present. A lower gastrointestinal tract roentgen-ray study demonstrated an irregularity of the lumen in the lower sigmoid colon (fig. 3). At laparotomy there were scattered serosal adhe-

Fig. 3. Case 5. Roentgenogram showing a constricting lesion of the sigmoid colon by endometriosis.

sions and a 4 by 4 by 3 cm. mass in the bowel wall which projected into the lumen. This mass was very firm, poorly demarcated from adjacent bowel wall, and contained numerous small cysts filled with dark liquid blood. Microscopic examination showed endometriosis (fig. 4).

Fig. 4. Case 5. Photomicrograph demonstrating endometriosis involving the muscle wall of the sigmoid colon. Hematoxylin and eosin stain. x 18.

CASE 6 (courtesy Dr. O. W. Gibbons).—A white woman, aged 48, para 0, gravida 0, complained chiefly of "flooding." Three months prior to admission the patient complained of excessive menstrual bleeding which was uncontrolled by hormones. No symptoms relating to the gastrointestinal system were recorded. Physical examination was normal except for an enlarged nodular uterus. Laparotomy showed fibromyomas of the uterus, adhesive perimetritis, and a 24 by 20 by 20 mm. mass deep in the wall of the midportion of the sigmoid colon which was partially obstructing the lumen. Pathologic examination of the sigmoidal mass showed endometriosis. The other tissues were not involved.

CASE 7.—A white woman, aged 38, for whom no history of parity was obtainable, complained of cramping abdominal pain, nausea, and vomiting. Approximately two months before admission the patient suddenly experienced generalized cramping abdominal pain which was most severe in the lower part of the abdomen. This was followed by nausea and vomiting over a period of approximately eight hours. About one month later she had another similar attack. A radiologic study of the lower gastrointestinal tract was done at this time, and an annular constriction of the midportion of the sigmoid colon with resultant large bowel obstruction was found (fig. 5). No other significant clinical history

Fig. 5. Case 7. Roentgenogram showing an annular constricting lesion of the sigmoid colon by endometriosis.

was obtainable. A segment of colon which was removed showed endometriosis on pathologic examination. Numerous adhesions were present in the pelvis.

SUBMUCOSAL INVOLVEMENT

CASE 8 (courtesy the Samuell Clinic).—A white woman, aged 35, para 0, gravida 0, for about seven months had noticed a white mucoid rectal discharge which was bloody at times. This occurred intermittently at 20 to 28 day intervals, lasting from 4 to 12 days. It was always associated with cramping abdominal pain. Three years previously a hysterectomy, unilateral oophorectomy, and bilateral salpingectomy were performed. Pathologic diagnosis was chronic pelvic inflammatory disease, and no endometriosis was demonstrated. Physical examination was noncontributory. A roentgen-ray study of the lower gastrointestinal tract showed partial obstruction of the bowel above the rectosigmoid junction. Laparotomy showed cystic endometriosis of the remaining ovary with angulation of the sigmoid colon at the rectosigmoid junction as the result of adhesions. A mass measuring 2 by 1.5 by 1 cm. in the bowel wall was found. This mass proved to be endometriosis (fig. 6).

Fig. 6. Case 8. Photomicrograph demonstrating muscle, submucosal, and mucosal involvement of the sigmoid colon by endometriosis. Hematoxylin and eosin stain. x 18.

COEXISTENT CARCINOMA AND ENDOMETRIOSIS

CASE 9 (courtesy Dr. M. Bounds).—A white woman, aged 50, para 0, gravida 0, presented the chief complaints of nausea, vomiting, and cramping lower abdominal pain for two days. Six months prior to this hospital admission the patient had become constipated for several days. This was unusual for her and was relieved by mineral oil. Four months later she had an episode of nausea without constipation or diarrhea. She began to lose weight at this time, and her appetite decreased. Her stools diminished in diameter and at times contained small amounts of blood. Two days before admission she developed abdominal distention associated with cramping pain, nausea, and vomiting. A hysterectomy, unilateral salpingectomy, and oophorectomy had been performed five years previously for multiple fibromyomas and endometriosis of the ovary. Radiologic studies showed an annular constriction of the upper sigmoid colon with resulting intestinal obstruction. At laparotomy two constricting lesions were found, one at the junction of the descending and sigmoid colon, the other at the rectosigmoid junction. The upper lesion proved to be primary adenocarcinoma and the lower lesion endometriosis (fig. 7). There was no other evidence of pelvic endometriosis.

CASE 10 (courtesy the Samuell Clinic).—A white woman, aged 36, para 0, gravida 0, offered the chief complaint of abdominal cramping pain. For three weeks the patient had suffered intermittent abdominal distention, constipation, and moderate cramping abdominal pain. Her stools on

occasion were admixed with small amounts of blood. The day prior to admission she stopped passing feces, and the abdominal pain became severe. She was admitted to the hospital, and a roentgenogram showed large bowel obstruction above a constricting lesion in the lower sigmoid colon. Past history revealed that a hysterectomy had been performed 11 years before because of "flooding." At laparotomy a segment of sigmoid colon, both tubes, and ovaries were removed. The pathologic diagnosis was endometriosis of both ovaries and colon with a primary adenocarcinoma of the bowel arising in the area of the endometriosis (fig. 8).

Fig. 7. Case 9. Gross photogroph showing a primory adenocarcinoma of the upper sigmoid colon (lesion on left) and endometriosis of the rectosigmoid junction (lesion on right).

DISCUSSION

From a pathologic viewpoint extragenital endometriosis is characterized by localized areas of ectopic endometrial tissue composed of characteristic stroma, glands, or a combination of these which thrive in an unnatural site away from the reproductive organs. This ectopic tissue is usually under hormonal control and undergoes changes simulating the endometrial cycle. These foci are associated with bleeding and a progressive proliferative fibrous tissue reaction. This characteristic behavior of endometriosis constitutes the basis for a variety of clinical symptoms depending upon the location and amount of aberrant endometrial tissue present.

In the majority of cases intestinal involvement is limited to the serosa of the sigmoid colon and the rectum. In these sites endometriosis does not usually produce intestinal obstruction or vicarious bleeding but is associated with pain and occasional diarrhea. This condition is not usually recognized except at the time of laparotomy, when small bluish nodules are noted on the serosa of the colon, just above the rectoperitoneal reflection and in the cul-de-sac.

The second most common location for sigmoidal endometriosis is in the muscle layers. In this location it mimics the clinical and radiologic picture of primary carcinoma of the colon. This is the result of scar tissue which is constantly a part of the endometriosis picture. As time passes more and more fibrous tissue is laid down between the muscle layers, and with contracture of this tissue the bowel may be angulated sufficiently to produce the clinical picture of recurrent incomplete intestinal obstruction. Rarely, if the endometriosis is extensive, there may be a circumscribed annular stenosis of the bowel. This will eventuate into constant, nearly complete obstruction with alternating obstipation, diarrhea, and pain as the chief symptoms. There is no way short of laparotomy biopsy to differentiate this lesion from carcinoma. A sigmoidoscopic biopsy is usually not successful in cases of endometriosis of the muscle layers since there may be inflammation and edema of the overlying mucosa. The procedure which is most often helpful to the surgeon, in our experience, is multiple frozen section examinations made at the time of laparotomy on tissue taken from deep within the bowel wall.

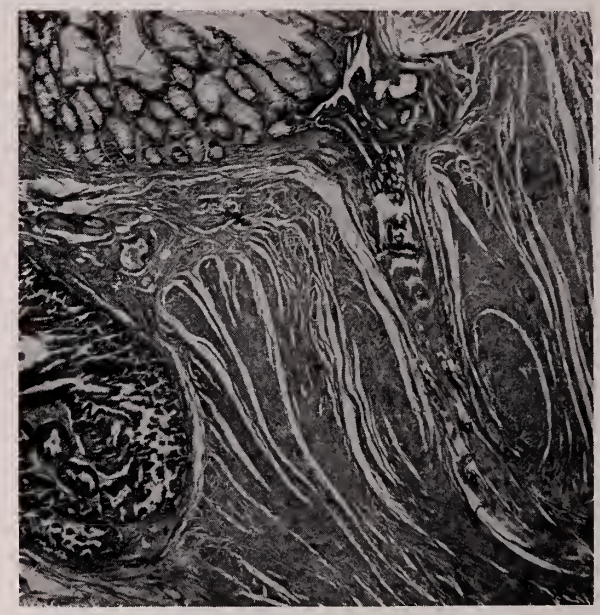


Fig. 8. Case 10. Photomicrograph showing involvement of the sigmoid colon by both primory adenocarcinoma (lower left) and endometriosis (upper right). Hematoxylin and eosin stain. x 33.

The third and least common site for sigmoidal endometriosis is in the submucosa. This gives a unique clinical history, characterized by bloody stools and pain occurring at the beginning of the menstrual periods. Here a definitive diagnosis is difficult to make since the radiologic examination may be negative because of the superficial location of the lesion, and the bleeding point may be extremely difficult to find. If the bleeding point is located, however, a good biopsy specimen can be obtained through the sigmoidoscope. Rarely a polypoid endometrial mass may project into the lumen of the bowel and cause obstructive symptoms.[1, 2, 3]

The fact that carcinoma of the colon occurs much less frequently in females than in males makes endometriosis, which so closely mimics carcinoma, of even greater significance. Since the treatment and prognosis of the two lesions is so different, it is extremely important to have a biopsy or frozen section diagnosis on sigmoidal lesions in the female before definitive therapy is carried out. The two diseases may occur at the same site or be separated by several centimeters, as demonstrated by 2 of our cases. If carcinoma and endometriosis coexist at the same site, the endometriosis is of only academic importance; but if they coexist at separate sites, the patient may be spared unnecessary surgery, provided the surgeon is aware of the frequent occurrence of endometriosis of the large bowel and asks for a frozen section study for differentiation.

Extragenital endometriosis in the past has been considered a rare lesion of concern only to the gynecologist and pathologist. It is now recognized as a relatively common entity which is of practical concern to the internist, surgeon, proctologist, and general practitioner as well as to the gynecologist. It should be strongly emphasized that endometriosis must be considered in the differential diagnosis of any constricting or obstructing lesion of the sigmoid colon in the female and that a frozen section diagnosis can prevent unnecessary surgery for a benign lesion, or in multiple lesions will detect the few cases of coexistent carcinoma and endometriosis at different sites.

SUMMARY

Ten cases of endometriosis of the sigmoid colon are reported with the clinical histories, illustrative roentgenograms, and photomicrographs of characteristic endometrial lesions involving the different layers of the large bowel. Included in this series are 2 cases of coexistent endometriosis and primary carcinoma of the colon. In 1 case the 2 lesions occurred at the same site; in the other case they were located at different levels.

The similarity of clinical symptoms and radiologic findings in endometriosis and carcinoma of the sigmoid colon is emphasized. The value of frozen section study is stressed as a means of preventing unnecessary surgical procedures.

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ABSTRACT OF DISCUSSION

DR. H. GRAY CARTER, Dallas: Endometriosis of the colon is a fascinating subject in that it has so many variables that each case is a separate challenge to one's diagnostic acumen and therapeutic judgment. I want to confine most of my remarks to diagnosis, but I must mention that even after the diagnosis is established one is often still in a dilemma as to whether the patient should be castrated, which usually relieves all symptoms, or the lesion of the bowel should be removed and the patient's reproductive apparatus preserved. This, of course, is a highly individualized problem and resolves itself on the basis of religious belief, desires of the patient, age of the patient, and philosophy and therapeutic judgment of the attending physician. In general there is a tendency to be conservative with the genital apparatus and radical in treatment of the gastrointestinal tract in the early years and to reverse the process and be radical in the treatment of the genital tract and conservative in the treatment of the gastrointestinal tract as the menopause is approached.

The clinical diagnosis of endometriosis of the large bowel presents problems which might be taken up in three groups roughly corresponding to the groupings of the authors. When the lesions are confined to the serosa, the intestinal symptoms are at best nonspecific. Generally speaking, no changes are detectable on sigmoidoscopic or roentgen-ray examination. It is usually an incidental finding when one is operating for other conditions and seldom presents any difficulty of differentiation from malignancy.

In the group of lesions involving the muscular and/or submucosal coats of the bowel, differentiation at the time of operation is much more difficult, and the possibilities of preoperative diagnosis are much better. These lesions are most likely to produce some degree of intestinal obstruction. If the patient is in the reproductive age and the history reveals other symptoms suggestive of endometriosis, for example, relative sterility, acquired dysmenorrhea, and sacral backache, the physician should be very suspicious. Much has been said in regard to the cyclic monthly recurrence of symptoms. This is of course very suggestive when present; but such a history is absent in 50 per cent or more of patients with obstructive endometriomas, and the absence of such a history does not rule out endometriosis. Evidence of genital endometriosis on pelvic examination should further heighten the suspicion.

Sigmoidoscopic examination is most valuable when the lesion is accessible to the 25 cm. sigmoidoscope. Endometriosis always begins extramucosally and only in rare in-

stances produces ulceration or mucosal changes, whereas carcinoma always arises in the mucosa and produces mucosal changes at its inception with early ulceration. Properly executed sigmoidoscopic biopsy of mucosal or ulcerated lesions is diagnostic. Only occasionally is the characteristic puckering of endometriosis observable through the sigmoidoscope. In the case of an endometrioma or other benign lesion one usually has to be satisfied with the determination that there is a nonulcerated extramucosal lesion. Sigmoidoscopic biopsy through the intact mucosa seldom reveals any diagnostic information.

For those lesions above the range of the sigmoidoscope satisfactory barium enema roentgen-ray examination usually differentiates adequately between ulcerated or nonulcerated lesions of the bowel, which is highly suggestive as to the presence or absence of malignancy.

If we remain aware of the existence of endometriosis and adequate preoperative examination is done, it is possible in a high percentage of cases to rule out malignancy; this greatly reduces the magnitude of the decision to be made at the time of laparotomy.

Frequently when inadequate preoperative examination has been done, and occasionally following adequate examination, there will be more than reasonable doubt as to the existence of a malignancy when an endometrial tumor of the bowel is found at laparotomy. It is here that our good friend the pathologist comes to our aid. When our pathologists are furnished an adequate specimen for frozen section, they can differentiate endometriosis, diverticulitis, and cancer without undue difficulty.

I am hesitant to cut into any lesion which I think is malignant at the time of laparotomy for fear of seeding malignant cells. At the same time I am also fearful of doing a mutilating, hazardous operation for the removal of a benign lesion. So I have developed the following set of rules to guide me.

Frozen section biopsies are done on:

1. All lesions that are thought to be endometriosis before they are removed by limited resection or left in situ to regress after castration.
2. Those lesions which appear to be incurable because of metastases and might be endometriomas. Endometriosis is known not infrequently to metastasize via the lymph channels and occasionally via the veins to distant organs simulating carcinoma.
3. Those lesions which if proven to be carcinomas require abdominal perineal resection. This problem almost never should arise as lesions in this area are accessible to the sigmoidoscope and available for definitive preoperative diagnosis. Biopsy is not done at the time of operation on those lesions occurring at a level permitting resection and restoration of continuity of the bowel, which the preponderance of evidence indicates are malignant and curable.

Those cases which are first seen with a complete obstruction of the colon are treated by emergency colostomy with little attempt to establish a diagnosis. During the interim between the colostomy and definitive resection the usual diagnostic evaluation can be done, and at the time of reoperation the same set of rules applies.

The day has come . . . when we can no longer look upon medical economics and social changes merely as issues to be considered during our limited leisure hours. . . . They must be a vital part of our life and of our profession. — Dr. Dwight H. Murray, Presidential Address before American Medical Association House of Delegates, Seattle, Nov. 27, 1956.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Dallas, April 27-May 1, 1957. Dr. Milford O. Rouse, Dallas, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, New York, June 3-7, 1957. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

FEBRUARY

American Academy of Allergy, Los Angeles, Feb. 4-6, 1957. Dr. Carl E. Arbesman, Buffalo, N. Y., Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American College of Radiology, Chicago, Feb. 8-9, 1957. Dr. Wilbur Bailey, Los Angeles, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Secy.

American College of Surgeons, New Orleans, Feb. 4-7, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

Texas Association of Obstetricians and Gynecologists, San Antonio, Feb. 23, 1957. Dr. Carey Hiett, Fort Worth, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Proctologic Society, Houston, February, 1957. Dr. Harry B. Burr, Houston, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Houston, Feb. 17-20, 1957. W. T. Ballard, Tyler, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Urological Society, Dallas, Feb. 3, 1957. Dr. Rex Carter, Austin, Pres.; Dr. J. D. Mitchell, Jr., 3707 Gaston Ave., Dallas, Secy.

First District Society, Pecos, Feb. 12, 1957. Dr. E. W. Schmidt, Pecos, Pres.; Dr. John Dunn, Pecos, Secy.

MARCH

American Academy of General Practice, St. Louis, March 25-28, 1957. Dr. J. S. De Tar, Milan, Mich., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American College of Allergists, Chicago, March 20-22, 1957. Dr. Ethan Allen Brown, Boston, Pres.; Dr. Giles A. Koelsche, Mayo Clinic, Rochester, Minn., Secy.

Texas Society for Mental Health, Dallas, March 7-9, 1957. Dr. Carmen Miller, Dallas, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Third District Society, Lubbock, March 30, 1957. Dr. A. G. Barsh, Lubbock, Pres.; Dr. William Klingensmith, 708 Monroe St., Amarillo, Secy.

Thirteenth District Society, Fort Worth, March 13, 1957. Dr. R. L. Nelson, Wichita Falls, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Dallas Southern Clinical Society, March 18-20, 1957. Dr. Howard C. Coggeshall, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

New Orleans Graduate Medical Assembly, March 11-14, 1957. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 626 Maison Blanche Bldg., New Orleans 16. Secy.

National and Regional

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Earling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 5-10, 1957. Dr. Edgar E. Martmer, Detroit, Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Thoracic Surgery, Chicago, May 4-7, 1957. Dr. Cameron Haight, Ann Arbor, Mich., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Hot Springs, Va., May 1-3, 1957. Dr. Archie L. Dean, New York, Pres.; Dr. John A. Taylor, 2 E. 54th St., New York 22, Secy.

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Chest Physicians, New York, May 29-June 2, 1957. Dr. Herman J. Moersch, Rochester, Minn., Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology, Boston, Oct. 21-26, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Physicians, Boston, April 8-12, 1957. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Congress on Obstetrics and Gynecology. Dr. R. Gordon Douglas, 116 S. Michigan Ave., Chicago 3, Chm.

American Dermatological Association, Belleair, Fla., April 13-17, 1957. Dr. Carroll S. Wright, Philadelphia, Pres.; Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.

American Gastro-Enterological Association, Colorado Springs, May 17-18, 1957. Dr. Sam A. Wilkinson, Jr., Boston, Pres.; Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secy.

American Gynecological Society, Hot Springs, Va., May 27-29, 1957. Dr. Norman F. Miller, Ann Arbor, Mich., Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Heart Association, Chicago, Oct. 25-28, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Atlantic City, Sept. 30-Oct. 3, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 17-19, 1957. Dr. H. Houston Merritt, New York 32, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, Hot Springs, Va., May 30-June 1, 1957. Dr. Frederick C. Cordes, San Francisco, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Carmel, Calif., June 17-19, 1957. Dr. Daniel C. Darrow, Mission, Kan., Pres.; Dr. A. C. McGuinness, 1427 I St., N.W., Washington 5, D. C., Secy.

American Proctologic Society, New Orleans, April 24-27. Dr. Rufus C. Alley, Lexington, Ky., Pres.; Dr. Karl Zimmerman, 3500 Fifth Ave., Pittsburgh 13, Secy.

American Psychiatric Association, Chicago, May 13-17, 1957. Dr. Francis J. Braceland, Hartford 2, Conn., Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1789 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 14-18, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, Chicago, May 8-10, 1957. Dr. Loyal Davis, Chicago, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association, Pittsburgh, May 6-9, 1957. Dr. George C. Prather, Brookline, Mass., Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, Delegates and Assemhly, Miami Beach, Fla., April 25-27, 1957. Dr. Charles W. Pavey, Columhus, Ohio, Pres.; Mr. Harry E. Northam, 185 N. Wahash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuherculosis Association, Kansas City, May 5-10, 1957. Dr. Howard W. Bosworth, Los Angeles, Pres.; Mrs. Morrell DeReign, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

South Central Association of Blood Banks, New Orleans, 1957. Dr. C. D. Fitzwilliams, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattieshurg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum, Fort Worth, May 5-7, 1957. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.

Southwest Regional Cancer Conference, Fort Worth, Fall, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.

Southwestern Medical Association, El Paso, Oct. 8-11, 1957. Dr. Celso Stapp, El Paso, Pres.; Dr. Russell L. Deter, 1501 Arizona St., El Paso, Secy.

Southwestern Society of Nuclear Medicine, Houston, April, 1957. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Wichita, Kan., April 15-17, 1957. Dr. John V. Goode, Dallas, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Assemhly, Shreveport, Septemher, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Brady, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 308 W. 15th, Austin, Executive Secy.

Texas Academy of Internal Medicine, Houston, Decemher, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, Dallas, April 28-29, 1957. Dr. W. A. Ostendorf, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Chapter, American College of Chest Physicians, Dallas, April 28, 1957. Dr. Walter C. Brown, Corpus Christi, Pres.; Dr. L. M. Shefts, 510 Moore Bldg., San Antonio, Secy.

Texas Chapter, American Association of Puhlic Health Physicians, Dallas, April 28, 1957. Dr. W. V. Bradshaw, Jr., Fort Worth, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Cluh of Internists. Dr. Hatch Cummings, Houston, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society, Dallas, April 28-29, 1957. Dr. Thomas L. Shields, Fort Worth, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diahetes Association, Dallas, April 28, 1957. Dr. Edwin L. Rippy, Pres.; Dr. Richard E. Nitschke, 1702 Nix Professional Bldg., San Antonio, Secy.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 1609 Colorado, Austin, Executive Director.

Texas Geriatrics Society, Dallas, April 30, 1957. Dr. Wendell D. Gingrich, Galveston, Pres.; Dr. J. O. S. Holt, Jr., 3707 Gaston Ave., Dallas, Secy.

Texas Heart Association, Dallas, April 28, 1957. Dr. D. D. Warren, Waco, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Lihrary Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Houston, May 14-16, 1957. Mr. H. M. Cardwell, Lufkin, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Industrial Medical Association, Dallas, April 30, 1957. Dr. V. C. Baird, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.
Texas Neuropsychiatric Association, Dallas, April 28, 1957. Dr. John L. Otto, Galveston, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.
Texas Ophthalmological Association, Dallas, April 30, 1957. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.
Texas Orthopedic Association, Dallas, April 29, 1957. Dr. John J. Hinchey, San Antonio, Pres.; Dr. Margaret Watkins, 3629 Fairmount, Dallas, Secy.
Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.
Texas Radiological Society. Dr. J. R. Riley, Corpus Christi, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas, Secy.
Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.
Texas Society of Anesthesiologists, Dallas, April 28, 1957. Dr. Charles R. Allen, Galveston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.
Texas Society of Gastroenterologists and Proctologists, Dallas, April 28, 1957. Dr. John McGivney, Galveston, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.
Texas Society of Ophthalmology and Otolaryngology, Dallas, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.
Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.
Texas Society of Plastic Surgeons, April 27, 1957. Dr. Thomas D. Cronin, Houston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.
Texas Surgical Society, Dallas, April 1-2, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.
Texas Traumatic Surgical Society, Dallas, April 28, 1957. Dr. Russell Holt, El Paso, Acting Pres.;Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.
Texas Tuberculosis Association, Fort Worth, April 4-6, 1957. Dr. Howard T. Barkley, Houston, Pres.; Mrs. J. V. Cooper, Waxahachie, Secy.
United States-Mexico Border Public Health Association, San Antonio, April 9-12, 1957. Dr. Guillermo Soberanes, Hermosillo, Sonora, Mexico, Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

District

Second District Society, Big Spring, 1957. Dr. Clyde Thomas, Jr., Big Spring, Pres.; Dr. Nell W. Sanders, P. O. Box 191, Big Spring, Secy.
Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.
Fifth and Sixth Districts Society. Dr. James C. Sharp, Corpus Christi, Pres.; Dr. Winston E. Riley, 2400 Morgan, Corpus Christi, Secy.
Seventh District Society, Austin, April 7, 1957. Dr. Leslie C. Colwell, Austin, Pres.; Dr. Robert N. Snider, 2410 Rio Grande, Austin, Secy.
Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.
Ninth District Society, Navasota, April 3, 1957. Dr. C. Marius Hansen, Navasota, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, 2, Secy.
Tenth District Society. Dr. Taylor Walker, Beaumont, Pres.; Dr. Alan E. Hubner, 590 Center, Beaumont, Secy.
Eleventh District Society, Jacksonville, Spring, 1957. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.
Twelfth District Society, July 9, 1957. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.
Fifteenth District Society, Mount Pleasant, April, 1957. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. John D. Gleckler, 211 N. Fannin, Denison, Chm.
North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.
Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.
Postgraduate Medical Assembly of South Texas, Houston, July, 1957. Dr. C. Forrest Jorns, 5644 Lawndale, Houston, Secy.
State Tumor Conference, Wichita Falls, April 3, 1957. Mrs. Chester Robinsin, Wichita County Medical Society Tumor Clinic, Wichita Falls, Secy.
International Medical Assembly of Southwest Texas. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

Board Examinations

Texas State Board of Examiners in Basic Sciences, next examination, April and October, 1957. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.
Texas State Board of Medical Examiners, Fort Worth, June 24-26, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

Personals

Dr. Harry M. Shytles, Jr., Sherman, has been chosen one of the outstanding young men of the state for 1956 by the Junior Chamber of Commerce.

Dr. J. Layton Cochran, San Antonio, Past President of the Texas Medical Association, is chairman of the community-wide $3,300,000 hospital expansion and building campaign.

Dr. Elbert Dunlap, Dallas, has retired after 60 years of active medical practice. He was honored by his colleagues at a luncheon January 21.

Dr. R. H. Rigdon, Galveston, and *Dr. William O. Russell,* Houston, have received research grants from the Tobacco Industry Research Committee. Dr. Rigdon will study the effect of methylcholanthrene on the tissues of the duck with emphasis on the reaction in the trachea when compared with the skin of the body and the web of the foot. Dr. Russell's research will be a pathologic-anatomic study of cellular changes in human bronchi.

Dr. John E. Martin and Miss Bonnie Northrop, Houston, were married December 31.

New parents of girls are *Dr. and Mrs. Stanley Saiken,* December 26 in Gainesville; *Dr. and Mrs. Ernest E. Rising,* December 14 in La Tuna; and *Dr. and Mrs. V. C. Smart,* December 5 in Austin.

Twins, a boy and a girl, were born December 12 to *Dr. and Mrs. E. R. Bebeau,* Beaumont.

Girls were born to *Dr. and Mrs. Herschel G. Tree,* October 12, in Texas City, and *Dr. and Mrs. Charles J. Hartel, Jr.,* in Galveston, December 10.

EDUCATION

Postgraduate Courses

Cardiology for General Physicians and Internists, New York, April 11-May 23 and May 6-24.—The first course, a part time session, will emphasize clinical cardiology, reviewing all major forms of heart disease. The second, a full time course, will include an intensive review of diagnosis and treatment of heart disease, and emphasis will be placed on electrocardiography and the modern electrophysiology of the heart. The Dean, Post-Graduate Medical School, New York University, 550 First Avenue, New York 16, will send further information on request.

Orthopedic Aspects of Treatment of Rheumatic Disorders, New York, March 19-April 2.—This course, given on three successive Thursdays, will review the basic orthopedic principles as they are applied in the treatment of rheumatic diseases. Office practice will be stressed, and extensive clinical

material will be demonstrated. The Dean, Post-Graduate Medical School, New York University, 550 First Avenue, New York 16, can provide details.

Maxillofacial Surgery, Houston, April 22-26.—Lectures, seminars, and demonstrations on diagnosis and treatment of fractures, neoplastic diseases, and developmental deformities will provide subject matter. Tuition is $125 and attendance will be limited. Dr. Sumter Arnim, Director, Postgraduate School of Dentistry, University of Texas Dental Branch, P. O. Box 20068, Houston 25, can provide application blanks and complete information.

Review of Clinical Pediatrics, March 4-9; *Gastroscopy and Flexible Tube Esophagoscopy,* begins March 4; *Clinical Internal Medicine,* begins March 7; *Electrocardiography,* March 18-22; *Refresher Course in Allergic Conditions,* March 25-27, New York City.—These courses are to be given by the New York University Post-Graduate Medical School, and complete information about these and other courses offered during the academic year may be obtained from the dean, Post-Graduate Medical School, New York University-Bellevue Medical Center, 550 First Avenue, New York 16.

Rheumatic Diseases, Houston, February 27-28 and March 1.—Emphasis will be on present day concepts and management of rheumatic diseases. The guest faculty will include Dr. Joseph Bunim, Bethesda, Md.; Dr. Richard H. Freyberg, New York; and Dr. William P. Holbrook, Tucson.

Prairie View Postgraduate Assembly

The twenty-first annual Postgraduate Medical Assembly will be held March 4-7 at Prairie View Agricultural and Mechanical College. Phases of medicine included in the program will be syphilis, tuberculosis, medical psychology, gastrointestinal disease, pediatrics, obstetrics, internal medicine, dermatology, public health, and neuropathology.

Out-of-state guest speakers will be Dr. Joseph G. Gathings, Dr. Howard M. Payne, Dr. Thomas E. Roberson, and Dr. Julian Waldo Ross, all of Washington, D. C., and Dr. Alexander D. Langmuir, Atlanta, Ga.

Refresher Courses for X-Ray Technicians

Six courses will be offered April 25-27 in Austin for x-ray technicians. The courses will be under the sponsorship of the Texas Society of X-Ray Technicians and are designed for technicians in every type of position.

Topics of these refresher courses will be "Radioactive Isotopes," "Handling the Patient in a Private Office," "Supervisor's Aids," "Radiographic Landmarks," "Physics," and "Public Speaking."

As many as three courses may be taken by any technician, and a complete course will cover one day. B. J. Hambrick, R. T., Baylor University Hospital, X-Ray Department, Dallas, can provide further information.

Taub Visiting Professorship

Dr. George W. Thorn, professor of theory and practice of physics, Harvard Medical School, and physician-in-chief, Peter Bent Brigham Hospital, Boston, was in Houston early in February as the Taub Visiting Professor of Internal Medicine for this year. He conducted daily teaching conferences at the Jefferson Davis, Veterans Administration, and Methodist Hospitals and at Baylor University College of Medicine. The Taub visiting professorship is sponsored annually by the medical school.

MEDICOLEGAL NOTES

Artificial Insemination

In the past several articles, various aspects of sterilization procedures have been discussed, and it has been shown that in that area there is much confusion and uncertainty. As far as the law is concerned, the problems presented by artificial inseminations are much more controversial and uncertain. Until the courts have explored fully and spoken upon the problems presented by artificial insemination, we can at best only consider some of the problems which are presented and some of the precautions which should be taken.

In the area of homologous insemination (where the wife for some peculiar physical reason cannot conceive even though her husband is fertile, and artificial insemination is used to inseminate the woman with her husband's own semen), no particular problems are presented. This is because the husband is in fact the donor.

It is in the area of heterologous insemination, where the husband is sterile and it is necessary that donor semen be used to inseminate the wife artificially, that problems and uncertainties arise. Of course, the primary problems of vital concern to the physician are: What responsibility does the physician assume as to the suitability of the donor? How far will the physician be liable for errors of judgment in vouching for the fitness of the donor? What legal effects will an unsatisfactory result have upon the physician in cases where the husband and wife have contracted to assume such risk, and in cases where this subject is not mentioned?

The answer to all of these questions can best be summed up in this statement—it is uncertain. Of course, the physician must assume some responsibility in ascertaining the suitability of the donor, but how much is not certain. It is likely that the courts would recognize a right on the part of the husband and wife to assume by express contract the risks of unsatisfactory results due to the unfitness of the donor, but again it must be said that to what extent or limit they may assume these risks is not known.

Besides the problems raised in regard to the physician, there are other important problems raised which due to their controversial legal nature can bear greatly upon the results which may be reached. They are problems about which the husband and wife contemplating artificial insemination should be aware. Just a few of these problems follow: Is the child legitimate or illegitimate? Will it be necessary to resort to adoption in order to bring the child within inheritance laws? Does the act of accepting artificial insemination constitute adultery? Is consent required not only of the wife but of the husband as well? Does the child have any rights of inheritance against the donor of the semen as a real parent?

Some of these questions are just beginning to be raised in the courts of the various states, and what will be the ultimate results is still open for speculation. There are supporters for both "yes" and "no" answers to the aforementioned questions.

Litigation in this area has been slow in coming, and the available cases leave much to be desired in answering the questions raised. Possibly the first case decided in this area was a Canadian case decided in 1921.* This case involved an alleged case of artificial insemination performed on a woman in England whose husband was in Toronto, Canada. While the question was not definitely decided by the court, it was strongly suggested that a woman who submits

**Orford v. Orford, 49 Ontario Law Reports 15.*

to artificial insemination without the consent of the husband, the donor being a man other than her husband, commits adultery.

In another case, which was decided in New York in 1947,† the court decided in a divorce action that the husband had the right to visit the child born to the wife even though the child was born as a result of artificial insemination. It might be said that in effect the court held that the child was legitimate, but it might well be that this was just a convenient method of allowing the husband certain rights which normally are given the father of a natural child in a divorce case where the mother has been given custody.

In a fairly recent case in Chicago, which arose as the result of a divorce action, the trial judge ruled that artificial insemination "with or without the consent of the husband is contrary to public policy and good morals and constitutes adultery on the part of the mother."

Clearly, these few cases have done little, if anything, to answer the uncertainty which is present in this area. While it appears at the present time that few of these questions ever will affect the physician directly, they are so important and could be so far reaching in effect that physicians should be aware of and consider them.

As to what precautions the physician should take in artificial insemination cases under the present state of the law, it might be well to set forth several points which physicians might use if presented with a case of this sort:

1. Both the husband and the wife should be informed of the legal problems which they may face, such as legitimacy of the child or property rights.

2. A "cooling off period" should be provided for the husband and wife to consider these problems.

3. Written consent should be signed by both husband and wife stating that they are aware of the medical and legal problems involved.

4. If there is the least possibility that the husband might not be sterile, semen which is a mixture of the husband's semen and the donor's should be used because there is a strong presumption at law that a child is legitimate, and with the husband's semen mixed with that of the donor, the court might well hold that the child is of the father's blood and consequently is legitimate.

5. The husband and wife should never know the name of the donor.

6. The donor should never know the name of the donee.

If these steps are followed and the physician uses care in selecting and determining the suitability of the donor, the possibility of any legal liability resulting from the physician's actions will be greatly lessened, notwithstanding the uncertainty of the law in this area.

—PHILIP R. OVERTON, LL.B., Austin.

Prescriptions Necessary For Hydrocortisone Preparations

The Food and Drug Administration has ordered that ointments and lotions containing hydrocortisone and hydrocortisone acetate may be sold only on prescription. According to the commissioner's statement, the available evidence fails to show that these drugs are safe for use without medical supervision, and that there is insufficient evidence to show the range in the amount of hydrocortisone that is absorbed through the skin and the clinical significance of such absorption.

†*Strnad v. Strnad, 78 N. Y. S. (2d) 390.*

What's News In Legislation

Legislation to eliminate the use of silver nitrate in the eyes of the newborn and to substitute other prophylactics was considered by the Texas Medical Association's Council on Medical Jurisprudence at its January 26 meeting, but no action was taken on this proposal because the present state law provides that other prophylactics may be used as approved by the State Board of Health. The council, in its report to the Executive Council January 27, suggested that this permissive provision be brought to the attention of Texas physicians. The Executive Council ratified this and other action by the Council on Medical Jurisprudence.

STATE LEVEL

The Council on Medical Jurisprudence approved the following state legislation: a proposed bill to allow the Board for Texas State Hospitals and Special Schools to contract with existing local facilities for the care of tuberculosis patients; a proposed mental health code designed to make more adequate and up to date the regulations for commitment to and operation of state mental hospitals; S. J. R. 3, which authorizes the creation of a citywide hospital district in Amarillo; S. B. 87, which extends the provision that a medical doctor and a registered nurse serve on the State Board of Vocational Nurse Examiners; S. B. 130, which establishes and provides for the construction of a state mental hospital; H. B. 120, which redefines the words "mentally retarded children"; and H. B. 31, which amends the uniform narcotic drug act to provide penalties for certain offenses involving minors under 19 years of age.

Opposed by the council was H. B. 17 in its present form as being in violation of the medical practice act. This bill involves the licensing of psychologists, and it was referred to the Committee on Mental Health for recommendation.

No action was taken on S. C. R. 15, which would allow the addition of facilities at the M. D. Anderson Hospital and Tumor Institute, Houston, if nongovernmental funds were used. H. B. 88, providing for treatment of narcotic drug addicts in state hospitals, was referred to the Committee on Mental Health.

NATIONAL LEVEL

National legislation also had its share of attention from the Council on Medical Jurisprudence. Five bills were approved. They included H. R. 9 and H. R. 10, the Jenkins-Keogh bills permitting the self-employed to deduct from adjusted gross income as much as 10 per cent of net earnings or $5,000, whichever is the lesser, when paid into retirement funds or plans; H. R. 131, authorizing a waiver of social security taxes and benefits for persons participating in private insurance or retirement plans; the Bricker amendment; and H. R. 58, which tightens up admission procedures for veterans seeking Veterans Administration hospitalization for nonservice-connected disabilities (see editorial in this *Journal*).

Other national legislation which will be in the news has been reported by the American Medical Association's Washington office. The administration again is asking Congress to authorize construction grants for medical, dental, public health, and osteopathic schools. The original plan was for an authorization of $250 million over a five year period for both laboratories and classrooms, but Congress authorized $90 million over a three year period for laboratories only.

A program of contributory, voluntary health insurance for federal civilian workers may gain approval this year, the AMA staff believes. Two previous proposals have failed

to pass because of objections of one or more groups to some aspect of the plan. Also in the voluntary health insurance vein may be legislation to stimulate coverage for major medical expenses for farmers, for the aged, and for low income families. The administration's reinsurance plan has been rejected twice by Congress, but a substitute plan may receive more favorable attention. This would permit smaller insurance companies to pool their resources without violating antitrust laws. Another proposal which is to be pushed in this Congress is the plan for federal grants to states to help them establish new health plans or to assist existing plans.

When the doctor draft act expires July 1, the Defense Department says it will ask for an amendment to the regular draft act to provide for the selective call of doctors under 35 who have been deferred to complete their education.

In all probability there will be bills designed further to liberalize the social security act, the AMA staff reports. Expected demands will be for lowering the age for disability cash payments, payments for temporary disabilities, and hospitalization for the aged. Some legislation, apart from that connected with social security, is expected to request federal aid for the aging population.

Money will be appropriated to maintain health, medical, and welfare programs already in existence, and medical research will have a large portion of the health budget.

MEDICAL MEETINGS

Institute in Psychiatry and Neurology

The Veterans Administration Hospital in North Little Rock will be host to those attending the ninth annual Institute of Psychiatry and Neurology there February 28-March 1. In addition to the scientific program, the following activities have been scheduled for February 27: a conference on psychiatric nursing, another on Veterans Administration psychiatric social work, and a third on clinical psychology.

Participants will include Dr. Francis J. Braceland, Hartford; Dr. J. B. Bounds, Roanoke; Dr. Esther Lucile Brown, Boston; Dr. Donald A. Covalt, New York; Dr. Iago Gladston, New York; Dr. Delmar Goode, Little Rock; Dr. William E. Gordon, St. Louis; Dr. Granville L. Jones, Little Rock; Dr. William K. Jordan, Little Rock; Dr. E. Lowell Kelly, Ann Arbor; Dr. Louis A. Krause, Baltimore; Dr. F. Douglas Lawrason, Little Rock; Dr. L. H. McDaniel, Tyronza, Ark.; Dr. William S. Middleton, Washington, D. C.; Dr. S. J. Muirhead, Salisbury, N. C.; Dr. Earl G. Planty, Urbana, Ill.; Dr. William G. Reese, Little Rock; Winthrop Rockefeller, Little Rock; Dr. Terry C. Rogers, Little Rock; Dr. Lee G. Sewall, Pittsburgh; Storm Whaley, Fayetteville; Dr. Lewis R. Wolberg, New York; and Dr. Harold G. Wolff, New York.

REHABILITATION CENTER PLANNING

The Institute on Rehabilitation Center Planning will be held in Chicago February 25-March 1. Determination of community need for a center, mobilization of area support, definition of a feasible program of services, conversion of the program into action, operation of centers, community relationships, and evaluation of center services will be topics for consideration. Inquiries and advance registrations may be sent to William F. Stearns, 5 Franklin Avenue, Saranac Lake, N. Y.

Symposium on Fundamental Cancer Research

The eleventh annual M. D. Anderson Hospital and Tumor Institute Symposium on Fundamental Cancer Research will be March 7-9 in Houston. The general subject for the symposium will be "Viruses and Tumor Growth."

The first day will consist of open house to all symposium members and a presentation of annual progress reports on certain current research projects will be made by the principal investigators at the hospital.

Friday, March 8, the presentation of papers will begin. They will include "Pathology of Virus Neoplasia"; "Genetic, Hormonal, and Age Factors in Susceptibility and Resistance to Tumor-Inducing Viruses"; "Immunological Factors in Viral Infections"; "Factors Influencing Proliferation of Viruses"; "Factors Influencing Proliferation of Tumor-Inducing Viruses"; and "Transmission of Tumor-Inducing Avian Viruses Under Natural Conditions."

The afternoon session will include papers on "Enhancement of Susceptibility to Viruses in Neoplastic Tissues"; "Virus Range of Stable and Pure-Line Cell Strains"; "Oncolytic Properties of Viruses"; "Cell-Free Transmission of Leukemia"; and "Isolation and Identification of Tumor-Inducing Viruses."

Saturday, the following presentations will be made: "Host-Virus Relationships in Tumor-Inducing Viruses"; "Carcinogens and Viral Infections"; "Action of Viruses on Cells"; "Potential Significance of Nucleic Acids and Nucleoproteins of Specific Composition in Malignancy"; and Viruses as Transducting Agents and Their Potential Significance in Cancer."

Friday evening, the Seventh Annual Bertner Foundation Award and Bertner Lecture will be made following a social hour and banquet.

Texas Society of Pathologists

At a January meeting in Galveston, members of the Texas Society of Pathologists approved a preliminary draft of a uniform code for necropsy procedure, a preliminary draft of a statewide medical examiner bill based on an independent commission, and an annual conjoint meeting with the Texas Society of Medical Technologists.

A high light of the meeting was the presentation of the Caldwell Award to Dr. John L. Goforth, Dallas. This award is given annually by the society to the outstanding Texas pathologist for teaching, research, and service during the past year. Only the day before, Dr. Goforth had been honored by the administrator of St. Paul's Hospital, Dallas, and presented with a diamond studded pin in recognition of his 30 years of service there.

Officers of the Society for the coming year are Dr. Lloyd R. Hershberger, San Angelo, president; Dr. John H. Childers, Galveston, president-elect; Dr. Maynard Hart, El Paso, vice-president; Dr. Mervin H. Grossman, Dallas, secretary-treasurer; and Dr. Jack P. Abbott, Houston, councilor.

American College of Obstetricians and Gynecologists

The fifth annual interim meeting of District 7 of the American College of Obstetricians and Gynecologists will be held at the new Statler-Hilton Hotel in Dallas April 12-13. Scientific papers, unusual case reports, diagnostic and treatment clinics, and a round-table discussion period will be included in the program. Dr. William P. Devereux, Dallas, is chairman of the local arrangements committee.

American Academy of General Practice

The American Academy of General Practice will have its ninth annual scientific assembly March 25-28 in St. Louis, and more than 25 prominent physicians will appear on the four day program. In addition, there will be 73 scientific and 260 technical exhibits.

Scientific topics to be discussed include infertility, open heart surgery, cardiac rehabilitation, abuse of hormones, respiratory complications in the newly born infant, neglected areas of childhood and adolescence, gynecologic disorders of the adolescent, endocrine abnormalities, preoperative and postoperative care, diagnosis of angina pectoris, effectiveness of the Salk vaccine, and intestinal obstructions.

Social events will be the president's reception and dance, to which doctors and their wives are invited, and numerous entertainments for the ladies.

Inter-American Medical Convention

The Second Inter-American Medical Convention, under the sponsorship of the Medical Society of the Isthmian Canal Zone, will meet in Panama City April 3-5. Speakers will be from both North and South America, and all papers will be translated into both English and Spanish. Details of the program are available from Dr. William T. Bailey, Chairman, Executive Committee, Gorgas Hospital, Ancon, Panama Canal Zone.

Pan American Medical Association

The tenth inter-American congress of the Pan American Medical Association will be held in Mexico City April 15-21. The meeting will be divided into sections covering nearly all branches of medicine and surgery, and there will be motion pictures, panel discussions, and scientific and technical exhibits. Details of the meeting are available from the Executive Director, 745 Fifth Avenue, New York.

Alumni Postgraduate Convention

Sixteen refresher courses and 12 outstanding medical speakers will be featured at the 1957 Alumni Postgraduate Convention sponsored by the Alumni Association of the College of Medical Evangelists School of Medicine in Los Angeles, March 10-14. All physicians may attend, and requests for information may be addressed to the Managing Director, Alumni Postgraduate Convention, 316 North Bailey, Los Angeles 3.

International Cancer Conference

London, England, will be the site of the seventh International Cancer Congress July 6-12, 1958. There will be two main sessions of the congress, experimental and clinical. Special emphasis will be given hormones, chemotherapy, carcinogenesis, and cancer of the lung. Proferred papers will be considered only if submitted with an accompanying abstract before October, 1957, and if dealing with new and unpublished work. Registration forms and a preliminary program will be available early in 1957 from the Secretary General, 45 Lincoln's Inn Fields, London, W. C. 2, England.

Fraternity Convenes in March

Phi Lambda Kappa fraternity will hold its fifth annual interim scientific meeting in Las Vegas March 19-26. The scientific program will be of special interest to general practitioners. Dr. Samuel L. Lemel, National Secretary, 1030 Euclid Avenue, Cleveland, 15, can provide complete program details.

Ohio Group Celebrates Centennial

The Academy of Medicine of Cincinnati (Hamilton County Medical Society) will celebrate its centennial February 27 through March 5. The occasion will be highlighted by a Health Museum and Exposition designed to interest the public in the fields of medicine, health, research, and science.

OF GENERAL INTEREST

WMA Promotes World Peace

At its most recent general assembly, the World Medical Association adopted a six point program to implement one of its constitutional purposes, to promote world peace. This program includes the development of mutual exchange visits of foreign doctors; exchanges of distinguished medical teachers, establishment by each WMA member national association of an international visitor's bureau, stimulation of visits by representatives of member associations to the annual meetings of other member associations, holiday exchange programs between doctors and their families, and exchanges of text books and medical and scientific publications.

Implementation of this program takes money and members. Dr. W. M. Crawford, 612 Sixth Avenue, Fort Worth, can provide information for interested physicians. Active membership dues for 1957 are $10.

Tuberculosis Preventive Research

Research aimed at learning how tuberculosis germs get into the lungs of uninfected persons and what may be done to prevent it is under way at the Veterans Administration hospital in Baltimore.

Studies with rabbits and with special laboratory types of tuberculosis germs have shown that only the tiniest of particles can carry the germ into the lungs of an uninfected animal. Ultraviolet light treatment of contaminated air has been found effective in protecting experimental animals from this laboratory type of tuberculosis.

To determine just how contaminated the air breathed by persons with active tuberculosis may be, 200 guinea pigs will stay for many months in an exposure chamber where they will breathe air drawn from the rooms of patients. The number of animals which show evidence of tuberculosis and the length of time the disease takes to develop will measure the degree of contamination of air by patients.

Hospital Construction to Increase

Hospital construction work in the United States will rise to an estimated $775,000,000 during 1957, according to Dr. John W. Cronin, assistant surgeon general, United States Public Health Service.

Even this stepped-up construction rate is not sufficient to eliminate hospital needs in the nation, Dr. Cronin believes. In the January 1 issue of *Hospitals,* he wrote, "We still have 160 areas with no acceptable facilities, containing a population of 2.8 million, and about 25 million people live in areas which provide less than 50 per cent of their general hospital needs."

Of the amount which it is estimated will be spent on hospital construction in 1957, $740,000,000 will be nonfederal, although $195,000,000 will be built with federal aid.

Physically Impaired Persons May Get Health Insurance

A plan to offer health insurance to people who have physical impairments was revealed at the recent Individual Insurance Forum of the Health Insurance Association of America in Dallas.

Gerald S. Parker, The Guardian Life Insurance Company of America, N. Y., proposed that health insurance protection be made available on an extra premium basis to physically impaired risks. Some insurance companies, he said, are already experimenting with this type of coverage. He emphasized that there still is much to be learned in this field, and that individual selection costs at the outset will seem astronomical. "None of us suggest that there are not substantial risks involved. None of us thinks it will be inexpensive. All of us think it can be done," he concluded.

Cardiac Section Expanded in Charity Hospital

The National Jewish Hospital, Denver, a free, nonsectarian institution, is expanding its facilities for cardiovascular patients with lesions amenable to surgical intervention. Inquiries concerning admission may be directed to Miss Grace Grossman, Director of Social Service and Rehabilitation, 3800 East Colfax, Denver 6.

MISSISSIPPI VALLEY ESSAY CONTEST

Any subject of general medical or surgical interest, including medical education and economics, may be submitted as an entry for the Mississippi Valley Medical Society Annual Essay Contest. Manuscripts, due not later than May 1, must not exceed 5,000 words, and must be submitted in five copies. The prize is $100, a gold medal, certificate, and an invitation to address the annual meeting of the society. Details may be obtained from Dr. Harold Swanberg, 209-224 W. C. U. Building, Quincy, Ill.

DIET MANUAL AVAILABLE

The Commission on Nutrition of the State Medical Society of Pennsylvania now is making available a new edition of its *Manual of Standard Therapeutic Diets.* More than 30 diets are presented, as well as a food composition table for a short method of dietary analysis. The first edition, issued several years ago, was so popular that supplies were soon exhausted. Copies of the manual may be obtained by sending $1 to the Commission on Nutrition, 230 State Street, Harrisburg, Pa.

There are more than 105,000 registered pharmacists engaged in active practice in the United States, according to the National Association of Boards of Pharmacy.

Total drug store business in the United States in 1955 exceeded $4,800,000,000 — an all-time record for the industry.

Vitamin A Hazards Considered

The possibility of regulating or controlling over the counter sales of nutritional supplements containing vitamin A was considered in a preliminary conference of pharmaceutical representatives called by the Food and Drug Administration's medical division January 14. The thought that something should be done to control distribution of the vitamin resulted from reports of some 25 cases showing toxic effects when intake of vitamin A exceeded 50,000 units daily for several months.

Expert consultants invited to assist with the problem included Otto Bessey, Ph.D. of the University of Texas Medical Branch, Galveston, and Dr. Tom D. Spies, chairman of the group, formerly of Texas and now of the University of Alabama.

Medical Examinations to Be June 24-26

The Texas State Board of Medical Examiners will meet in Fort Worth June 24-26 to give examinations and consider applications for licenses by reciprocity. Applications for reciprocity must be complete and on file with the board at least 30 days prior to the meeting date. Applications for examinations for the June meeting must be completed and filed no later than June 14.

Big Bend Plant Source of Cortisone

A weed that grows in profusion in the Big Bend of Texas and that is often fatal to sheep and goats offers a new, cheap source for cortisone, the Department of Agriculture is reported by the December 15 *Journal of the American Medical Association* to have announced. Agave lecheguilla contains a substance known as smilagenin from which cortisone can be made chemically.

Health Coverage Reaches New High

The number of people in Texas who are covered by voluntary health insurance reached a new high by September 30, the Health Insurance Council Reports. Some 4,400,000 persons were protected, as of that date, by insurance designed to help pay hospital and doctor bills.

Asymptomatic Neurosyphilis

The Cooperative Clinical Group, U. S. Public Health Service, analyzed 765 cases of asymptomatic neurosyphilis treated with penicillin. Statistics were based on groups observed over a period of six to seven years. The probability of progression to symptomatic neurosyphilis after penicillin therapy is .55 per cent the first year, 1.69 per cent the third year, 2.02 per cent the fifth year, and 3.31 per cent

the seventh year after treatment. Of this large series only one case was unequivocally a treatment failure, and this patient responded satisfactorily to retreatment with a larger dose of penicillin. It is thought that most of the so-called progression acually represents the first clinical recognizable manifestation of preexisting subclinical central nervous system damage.

It would appear from this study that penicillin alone is capable of curing asymptomatic central nervous system syphilis.—Hahn, R. D., and others, A.M.A. Arch. Dermat. & Syph. 74:355-366 (Oct.) 1956.

Herpes Zoster, Chicken Pox Treated with Gamma Globulin

The authors treated 11 cases of herpes zoster with gamma (immune) globulin in doses of 20 cc. daily for four days. They also treated 5 children with chicken pox similarly with daily doses of 12 cc. for a total of three days. The authors feel that both processes were attenuated and that the zoster pain was definitely and promptly relieved.

The clinical behavior of herpes zoster is very unpredictable, and evaluation of treatment of any sort in this disease is difficult. Controlled comparisons would be necessary to withstand critical statistical analysis. One large disadvantage at this time, however, is the high cost of commercial gamma (immune) globulin.—Rodarte, J. G., and Williams, B. H., A.M.A. Arch. Dermat. & Syph. 73:553-555 (June) 1956.

Prepaid Medical Care Began Long Ago

That prepaid medical care was considered even 112 years ago is shown by the following items from the 1844 journal of Dr. John S. Ford, who practiced at that time in San Augustine:

"To med. attention, self & family from date a/c to Jan. 1, 1845, $20 Pd."

"To med. attention self and family Feb. 1844 to Jan. 1, 1845, $100 Pd."

The latter fee was Dr. Ford's largest collection during the year, and was made in advance. He made one collection of $96 on another account, on which a balance of $70 was carried over from 1843 and built up to approximately $70 more. After paying the $96, the patient owed a balance of $44.12.

Dr. Ford's journal is photostated, and copies are in the Texas Archives at the Barker History Center, University of Texas, Austin.

—Dr. J. M. Coleman, Austin.

Physicians' Attitudes On Health Insurance

The responses of nearly 8,000 physicians surveyed on their attitudes toward voluntary health insurance indicated the following:

1. The majority thought that health insurance should be underwritten by all agencies on a competitive basis.
2. More than half expressed the opinion that the function of such programs is to provide financial assistance.
3. More than three-fourths thought that insured patients should pay some portion of medical care costs in addition to the insurance.
4. Most believed that insurance should attempt to cover only "a substantial portion" rather than the entire fee.

The survey was conducted by the Council on Medical Service of the American Medical Association.

All of us . . . sooner or later . . . learn that today's events do not just swirl around us, but involve each of us. As doctors we cannot get away from them by claiming that our only interest is in the sick, and that we cannot be bothered by political, social and economic problems. These matters demand attention from the doctor as well as the lawyer, the businessman, the newspaper editor, the labor leader and the worker.—Dr. Dwight H. Murray, Presidential Address before American Medical Association House of Delegates, Seattle, Nov. 27, 1956.

MEMORIAL LIBRARY

Library Report—1956

The past year was an important one in the history of the Texas Medical Association Memorial Library, as the growth and development of the Library during that time brought about the realization of the present status—that of a large medical library. The acquisition of volume 25,000 has made this status possible. The addition of books and films has contributed to the efficiency with which the Library can be of service to doctors and medical groups. Following is a summary of the Library report for 1956, which shows an increase over the past few years.

Number of reference requests	2,428
Circulation of material	
Reprints	8,443
Journals	5,205
Books	1,100
Bound journals	783
Photographic duplications	5,424
Number of motion picture films added to Library	38
Total number of films	160
Films shown	899
Bibliographies compiled	71
Number of volumes in Library	25,000

Gifts to the Library

Dr. Josephine Dunlop, Austin, 12 journals.

Dr. F. P. Helm, Austin, 17 journals.

Mrs. James T. Johnson, Denison, 54 books.

Drs. Carey and Georgia Legett, Austin, 66 journals, 2 books, 2 pamphlets.

Dr. A. D. Pattillo, Austin, 33 journals.

Dr. Walter D. Roberts, Austin, 15 journals.

Dr. Joe C. Rude, Austin, 13 journals.

Dr. Nelson L. Schiller, Austin, 18 journals, 10 pamphlets, 10 reprints.

Dr. C. A. Selby, Sinton, 276 journals.

Dr. B. O. White, Austin, 18 journals.

NEW BOOKS

Abransib, Harold A.: *The Patient Speaks,* New York, Vantage Press, 1956.

Bauer, W. W.: *Official American Medical Association Book of Health,* New York, Dell Publishing Company, 1957.

Dock, William: *Heart Sounds, Cardiac Pulsations, and Coronary Disease,* Lawrence, University of Kansas Press, 1956.

Encyclopedia of American Associations, Detroit, Gale Research Company, 1956.

Fishbein, Morris, Ed.: *1956 Medical Progress,* New York, Blakiston, 1956.

Fromm-Reichmann, Frieda, and Moreno J. L.: *Progress in Psychotherapy,* New York, Grune and Stratton, 1956.

Larimore, Granville W.: *Home Health Emergencies,* New York, Equitable Life Assurance Society, 1956.

Lee, Roger I.: *The Happy Life of a Doctor,* Boston, Little, Brown & Company, 1956.

Leider, Morris: *Practical Pediatric Dermatology,* St. Louis, C. V. Mosby Company, 1956.

Mayo Clinic: *Clinical Examinations in Neurology,* Philadelphia, W. B. Saunders Company, 1956.

McCombs, Robert P.: *Internal Medicine, A Physiological and Clinical Approach to Disease,* Chicago, Year Book Publishers, 1956.

Merck Sharp and Dohme: *Benemid, A Review of the Nature and Treatment of Gout,* Merck Sharp and Dohme, 1956.

Pirie, Antoinette: *Biochemistry of the Eye,* Springfield, Ill., Charles C Thomas, 1956.

Prince, Jack H.: *Comparative Anatomy of the Eye,* Springfield, Ill., Charles C Thomas, 1956.

Schonell, F. Eleanor: *Educating Spastic Children,* New York, Philosophical Library, 1956.

Selye, Hans: *The Stress of Life,* New York, McGraw-Hill, 1956.

Snapper, I.: *Medical Clinics on Bone Diseases,* ed. 2, New York, Interscience Publishing Company, 1949.

★ Motion Pictures

Crosh Reseorch Films

The following films were produced by Ford Motor Company in collaboration with Cornell University Research Center.

Crash and Live
Sound, black and white, 24 min.

Crash Reseorch
Sound, black and white, 10 min.

Freedom of the Americon Rood
Sound, black and white, 27 min.

On Impoct
Sound, black and white, 14 min.

Robies Con Be Controlled

16 mm., color, sound, 13 min.

Prepared for showing to all types of groups, the film points out the need for protecting your dog and yourself against the dreaded disease, rabies. Clinical cases of rabies in a human and in a dog are shown. Methods of preparation of a new rabies vaccine are shown as well as its use in mass vaccination programs.

★ Books

Introduction to Hepotic Surgery

HENRY GANS, M.D., *Surgical Resident, Cincinnati. Introduction by* A. BRUNSCHWIG, M.D. *265 pages. $12. Houston, Elsevier Publishing Company, 1955.*

This volume represents a tremendous amount of detailed study of a hazardous surgical entity. Recognizing the high mortality rate of hepatic surgery, Dr. Gans has attempted to lower this rate by a new approach. He makes a definite advance in this regard by pointing out that a lack of understanding of the anatomical structure of the liver is largely responsible for the major difficulty encountered by hepatic surgeons. To correct this fault, a fairly new description of the various divisions of the liver is given in detail, and an effort is made to present the relationship of the lobes of the liver to the arterial, venous, and biliary systems. It is stressed that surgery can be done more safely with a complete knowledge of this relationship. The part of the book devoted to anatomy is so much in detail and so comprehensive as to command the reader's closest attention, and it can be read with benefit by the anatomist as well as the surgeon.

An entirely new concept is the use of blunt, rather than sharp, dissection in performing a hemo-hepatectomy or a hepato-lobectomy. By this method the blood vessels can be isolated without being interrupted and ligated at the hilum, thus offering a favorable control of hemorrhage, which has been the greatest problem in hepatic surgery.

The chapter on wounds of the liver is surgically sound and should serve as a valuable guide to abdominal surgeons. The close statistical study of wounds of the liver makes it evident that early operation is preferable to conservative methods in wounds of the liver. Attention is called to the need for removal of the lobe itself in deep laceration of the liver, rather than for an attempt to control hemorrhage by one of the various methods heretofore in vogue.

Even though Dr. Gans has sought to place surgery of the liver on a more rational basis, the reader is not led to believe that it is no longer a major procedure.

This volume could have been improved with more illustrations of the steps of the operations advocated. Statistical evidence of the efficacy of this new procedure also is lacking.

The writer has given us a book that is not for the casual surgeon, but rather for one deeply interested and who has an opportunity to become proficient in hepatic surgery. For such a surgeon the ideas advanced may be comforting and helpful when the need for the surgical removal of a lobe of the liver becomes necessary.

—J. W. Nixon, M. D., San Antonio.

The Truth About Cancer

CHARLES S. CAMERON, M.D., *Medical and Scientific Director, American Cancer Society. 268 pages. $3.95. Englewood Cliffs, N. J., Prentice-Hall, Inc., 1956.*

This book is ably written and may be easily read and understood by medical men and laymen alike. It appears to the reviewer that this book should be available to every practicing physician in the United States at the actual cost of publication before it is released to the public, for it contains a great deal of practical and homey information which

will be read and used by the public at large. It is imperative that all members of the medical society and all workers in connection with the American Cancer Society's activities be thoroughly versed in the material that is presented.

It is the reviewer's opinion that this book ought to be in the hands of every medical student before graduation in order that he may acquaint himself with the terminology and descriptive material and information that the public will be using on their physicians.

This book is filled with factual information that certainly will be read with interest by the more intelligent citizens, but likewise it may cause considerable apprehension in the heart of anyone who has the signs and symptoms presented under the various systems. A good many of the symptoms mentioned may be caused by conditions other than cancer, but the publication has merit in that it will encourage the patient to have an examination if he has one or more of the symptoms mentioned. The book is a well balanced effort covering the causes of cancer, the misconceptions about it, the modalities available for its proper treatment, the role of hormones, the important place of palliation, the various types of cancer quacks, the importance of genetics and research in relation to malignancies of all types, and a well done section on skin cancer, which is more prevalent in the Southwest than it is in some other areas of the country.

Part 2 takes up in detail cancer of the skin, mouth, larynx, gastrointestinal tract, breast, uterus, lung, urinary and genital tracts; allied diseases such as lymphomas, leukemia, Hodgkin's disease, and lymphosarcoma; sarcomas of bone; and malignancies in children such as retinal glioma, Wilms's tumor, and leukemia.

The book ends with an appeal for all parents to learn and be alert to the seven danger signals, not to procrastinate in having a thorough check of anything that falls within the danger signals, to undergo regular physical examinations at least once a year, particularly after the age of 50, and to learn the art of self examination as regards the skin, breast, and oral cavity.

Finally, it is worth repeating that every practicing physician should have this book in his library and read it, for a well informed public is in the offing.

—Joe C. Rude, M. D., Austin.

Magic, Myth, and Medicine

DONALD T. ATKINSON, SC.D., M.D., LL.D., F.A.C.S., F.I.C.S. *319 pages. $5. Cleveland, World Publishing Company, 1956.*

Dr. Atkinson has performed a great service to the medical profession by writing this book. Since his early youth, he has been interested in medical history as a hobby, and has visited on five continents the sites of importance in medical history. He tells the scientifically accurate history of medicine in a simple, concise manner that reads as easily as a novel. This book is highly recommended, for patient as well as doctor.

—H. E. Thompson, M. D., Navasota.

Sexual Precocity

HUGH JOLLY, M.A., M.D. (Cambridge), M.R.C.P., *Consultant Paediatrician, Plymouth Clinical Area; Late Senior Medical Registrar, Hospital for Sick Children, London. 276 pages. $6.75. Springfield, Ill., Charles C Thomas, 1955.*

This book is the result of a personal study of 69 patients with precocious puberty. There is a foreword by Lawson Wilkins.

The book is well organized, readable, and practical. The first half of the book is a critical review of the whole subject. The second half consists of individual case reports with all pertinent clinical and laboratory data and many excellent photographs. The relative frequency of the different types of precocious puberty are demonstrated and methods of differential diagnosis clearly described. The diagnostic tools are those available to most practicing physicians.

The following paragraph deserves quotation:

> Sexual precocity is commoner in girls and in the present study there are 50 girls to 19 boys. The commonest cause in girls is precocity of constitutional origin and this accounted for 31 of these patients. This point is emphasized, together with the great rarity of the granulosa cell tumour of which one only is included, since these children are frequently subjected to an unnecessary laparotomy for fear of overlooking this tumour. In children the granulosa cell tumor is palpable by the time it has caused signs of precocity and it is therefore recommended that a laparotomy should only be carried out if an abdominal mass is felt.

—C. O. Terrell, Jr., M. D., Fort Worth.

The Blood-Brain Barrier; With Special Regard to the Use of Radioactive Isotopes

LOUIS BAKAY, M.D., F.A.C.S., *Instructor in Surgery, Harvard Medical School; Assistant in Neurosurgery, Massachusetts General Hospital, Boston. 154 pages. $5.50. Springfield, Ill., Charles C Thomas, 1956.*

This is a scientifically documented study of the relatively mystic blood-brain barrier. Emphasis is placed upon the use of a variety of radioactive isotopes, including arsenic, bromide, carbon, chloride, copper, gold, iodine, potassium, sodium, sulfur, zinc, phosphorus, and dyes, both experimentally and clinically. A short but interesting historical introduction reveals the progress through the use of vital dyes in these studies, progressing to the use of radioactive dyes, and the application of radioactive isotopes and their importance, not only in the normal metabolism of the central nervous system, but also in trauma, infections, and tumors. The anatomic location still is under some dispute, and the capillary wall theory, the pia-glia membrane theory, and the tissue affinity are discussed. A large section is devoted to experimental techniques with radioactive phosphorus (P^{32}). The effects of toxins, venoms, arteriographic contrast media, allergic agents, and even artificially induced seizures, as well as radiation with roentgen rays, on the permeability of this barrier are also well documented. This is a practical progress summary of recent advances, with the latest and most accurate of techniques. Despite the small size of this book, there is no lack of continuity, and interest is easily maintained.

—Moses Ashkenazy, M. D., Houston.

Hypnotic Suggestion; Its Role in Psychoneurotic and Psychosomatic Disorders

S. J. VAN PELT, M.B., B.S., *President, British Society of Medical Hypnotists; Editor, British Journal of Medical Hypnotism. 95 pages. $2.75. New York, Philosophical Library, 1956.*

A Modern Pilgrim's Progress for Diabetics

GARFIELD G. DUNCAN, M.D., *Clinical Professor of Medicine, Jefferson Medical College; Director of the Medical Divisions of Pennsylvania Hospital and Benjamin Franklin Clinic, Philadelphia. 222 pages. $2.50. Philadelphia, W. B. Saunders Company, 1956.*

Hypothalamic-Hypophysial Interrelationships: A Symposium

WILLIAM S. FIELDS, *Professor of neurology, and others, Eds. 156 pages. $4.75. Springfield, Ill., Charles C Thomas, 1956.*

It is inspiring to see that the Houston Neurological Society, founded in 1951, has published a book of eight papers, together with their discussion, from its third annual meeting.

Contributors are from the Neurological Institute and the College of Physicians and Surgeons in New York; the University of California at Los Angeles Medical School; the University of London, England; the University of Pittsburgh, Philadelphia; Montreal Neurological Institute; the University of Texas Medical Branch, and Baylor University College of Medicine. These papers will be of interest to those engaged in endocrinology, psychiatry, neurology, and neurosurgery and to those with an interest in basic research or psychosomatic medicine. It represents the most complete coverage of the central nervous system–pituitary interrelationship presented in bound form since the publication in 1952 of the "Ciba Foundation Colloquia on Endocrinology, volume 4."

The first six chapters are devoted to basic science and give an excellent presentation of the diencephalic pituitary region, especially its neuronal and vascular intercommunications.

A well organized discussion of the supraoptic and paraventricular nuclei as a part of the hypothalamic neurohypophyseal secretory system is presented together with experimental data and other information bearing on the control of pituitary action and secretions and this gland's interrelationships with other organs, such as the adrenals. A scholarly presentation was made by Dr. R. Guillemin, who properly pays tribute to one of our illustrious workers, Dr. Charles M. Pomerat. Dr. Guillemin brought out the fact that anterior pituitary tissue in vitro would secrete only when incubated with homogenates of hypothalamic tissue. This finding has been clarified by recent isolation of a hypothalamic hormone which stimulates the pituitary to produce ACTH. The remaining papers are clinical, and the first discusses stimulation of the septal area of the brain with permanently implanted electrodes for the relief of intractable pain.

The last paper of the symposium relates to the diuresis and diabetic-like syndrome which often follows the use of ACTH or steroids and presents evidence to support the thesis that it is an increase in serum toxicity which leads to the polydypsia and consequent polyuria. The book ends with a good general discussion and summary of the symposium, and one should not close without commenting on the fine paper by Gloor, "Telencephalic Influences upon the Hypothalamus," and commend the author for the fine illustrations used throughout the paper.

Although this book will not have a general appeal, it will be read by those who are interested in the central nervous system. It is a frontier in which we may expect many future accomplishments.

—Noble Endicott, M. D., Austin, and
Joe C. Rude, M. D., Austin.

Retinal Circulation in Man and Animals

I. C. MICHAELSON, Ph.D., Glasgow; F.R.F.P.S., Glasgow; D.O.M.S., England, *Advisor in Ophthalmology to the Government of Israel; Chief, Department of Ophthalmology, Government Hospital, Haifa. 146 pages. $6.75. Springfield, Ill., Charles C Thomas, 1954.*

ORGANIZATION SECTION

★ Texas Medical Association

Fort Worth Reporter Wins Anson Jones Award

Blair Justice, medical writer for the *Fort Worth Star-Telegram,* is recipient of first place award in the Texas Medical Association's first Anson Jones competition, winners of which were announced February 1. The commendation, bestowed on a Texas reporter for "distinguished accurate lay medical reporting," will be presented annually and carries a stipend of $250 cash and a plaque.

Mr. Justice's work included reporting on the University of Texas Medical Branch at Galveston, the Texas Academy of General Practice, Cancer Research Symposium, Texas Medical Association, and general local medical reporting. Miss Helen Bullock, reporter for the *Dallas Morning News,* was selected for first place honorable mention, and Miss Lorraine Barnes of the *Austin American-Statesman* for second honorable mention. Bob Hamilton, reporter for the *Moore County News* in Dumas, received commendation for his work in the field of weekly newspapers.

Initiated by the Committee on Public Relations, the Anson Jones Award is designed to further relations between county medical societies, Texas newspapers, and the Texas Medical Association. Nominations for the award were submitted by county societies, and they worked closely with the editors of newspapers in selecting writers to represent their respective areas. Any Texas reporter who serves a single newspaper, a news service, or periodical is eligible.

Formal presentation of the Anson Jones Award will be made May 1 at the General Meeting Luncheon during the annual session in Dallas.

Texas Medical Association To Assist "Operation Rebound"

The Board of Trustees of the Texas Medical Association has appropriated $1,700 to help defray expenses involved in obtaining trailers for, and repacking, two 200 bed hospital units furnished the Houston and Galveston areas by the Federal Civil Defense Administration.

These hospital units will be tested during Operation Rebound, which will take place during the latter part of March. Since physicians in the Houston and Galveston areas have had previous experience in coping with emergency medical care, it is believed that they can and should assume some responsibility in testing the emergency hospital units. Two other tests have been made, but they were unrealistic in that they were carried out by disciplined and experienced military personnel and were carefully rehearsed. Nevertheless, much was learned from these two tests, and modifications of casualty care policy are proceeding.

The test is to be a cooperative project of the Texas Medical Association, Baylor University College of Medicine, the University of Texas Medical Branch, local medical societies, and regional, state, and local civil defense organizations.

DR. LOUIS A. BRUNSTING, *Head of Section on Dermatology and Syphilology, Mayo Clinic, Rochester, Minn.*

DR. THOMAS H. BURFORD, *Professor of Thoracic Surgery, Washington University School of Medicine, St. Louis*

DR. D. EWEN CAMERON, *Chairman of Department of Psychiatry, McGill University, Montreal, Canada.*

DR. RICHARD H. CHAMBERLAIN, *Professor of Radiology, University of Pennsylvania School of Medicine, Philadelphia.*

DR. WARREN H. COLE, *Professor and Head of Department of Surgery, University of Illinois College of Medicine, Chicago.*

DR. LAURENCE B. ELLIS, *Associate Clinical Professor of Medicine, Harvard Medical School, Boston.*

GEORGE P. GARDERE, LL.B., *Trial Attorney with Leachman, Gardere, Akin & Porter, Attorneys and Counselors, Dallas.*

JOSH H. GROCE, LL.B., *Attorney with Eskridge, Groce & Hebdon, Attorneys at Law, San Antonio.*

Refresher Course Faculty

DR. JOHN B. HICKAM, *Associate Professor of Medicine, Duke University School of Medicine, Durham, N. C.*

DR. JOHN R. HILL, *Section of Proctology, Mayo Clinic, Rochester, Minn.*

DR. REYNOLD A. JENSEN, *Professor of Psychiatry and Pediatrics, University of Minnesota Medical School, Minneapolis.*

ANNUAL SESSION REFRESHER COURSES

A refresher course program, presented for the first time by the Texas Medical Association at its 1955 annual session in Fort Worth, is again scheduled as a part of the convention program. Twenty-four refresher courses, each consisting of an hour of lecture by an outstanding national medical leader or panel of experts plus a half hour of questions and answers, are being offered. Primarily for the benefit of physicians doing general practice but also of value to specialists, the courses, like the rest of the scientific program at the annual session, will be granted informal hour-for-hour credit by the Texas Academy of General Practice.

Courses are scheduled for 8:15 to 9:45 a. m., Monday through Wednesday, April 29-May 1, and a physician may attend as many as three courses, one each day. Attendance is limited to approximately 50 persons, with admission only by ticket, for which there is no charge. Tickets will be available at the Association's registration desk in Hotel Adolphus throughout the meeting beginning Saturday, April 27, except for the period between 7:45 and 10:00 a. m. on Monday, Tuesday, and Wednesday, when they will be distributed on the mezzanine floor of the Baker Hotel, where all of the courses will be given.

Members of the Texas Medical Association will be given priority for tickets. Residents, interns, and others who are not members of the Association may attend the courses as space is available. They may get tickets the morning of the course and from 5 to 6 p. m. on the afternoon preceding.

Physicians are urged to have in mind first, second, and third choices for each day and to return to the registration desk any tickets they do not intend to use.

DR. WINGATE M. JOHNSON, *Professor of Clinical Medicine and Chief of Staff of Private Diagnostic Clinic, Bowman Gray School of Medicine, Winston-Salem, N. C.*

DR. ARTHUR C. JONES, *Otolaryngologist, Jones Clinic, Boise, Idaho.*

DR. H. RELTON MCCARROLL, *Assistant Professor of Clinical Orthopedic Surgery, Washington University School of Medicine, St. Louis.*

DR. M. H. MORRIS, *Orthopedic Surgeon, San Antonio.*

DR. H. B. MULHOLLAND, *Professor of Internal Medicine and Assistant Dean, University of Virginia Medical School, Charlottesville.*

PHILIP R. OVERTON, LL.B., *General Counsel, Texas Medical Association, Austin.*

SMITH PETTIGREW, *Medical Co-Ordinator, Texas Employers' Insurance Association, Dallas.*

DR. FREDERICK C. REHFELDT, *Neurologic Surgeon, Fort Worth.*

DR. A. D. RUEDEMANN, SR., *Professor of Ophthalmology, Wayne University College of Medicine, Detroit.*

Summaries of the courses will be included with the annual session program in the March issue of the *Journal.* The list of courses and instructors, along with the room assignments, follows.

MONDAY, APRIL 29, 8:15 TO 9:45 A. M.

Baker Hotel, Mezzanine Floor

M-1 *Treatment of Common Skin Diseases.*
LOUIS A. BRUNSTING, Rochester, Minn.
(Texas Room)

M-2 *Immediate Management of Major Chest Injuries.*
THOMAS H. BURFORD, St. Louis.
(Banquet Room 1)

M-3 *Risks and Rewards in the Use of the Fluoroscope.*
RICHARD H. CHAMBERLAIN, Philadelphia.
(Banquet Room 3)

M-4 *Surgical Lesions of the Thyroid.*
WARREN H. COLE, Chicago.
(English Room)

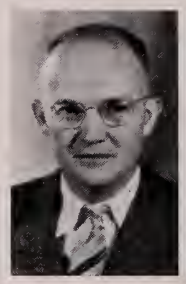
DR. JOHN R. SCHENKEN, *Professor of Pathology and Chairman, Department of Pathology, University of Nebraska College of Medicine, Omaha, Neb.*

DR. ROGER B. SCOTT, *Associate Professor of Obstetrics and Gynecology, Western Reserve University School of Medicine, Cleveland.*

DR. CALVIN M. SMYTH, *Professor of Surgery, University of Pennsylvania Graduate School of Medicine, Abington, Pa.*

C. JOSEPH STETLER, *Director of Law Department, American Medical Association, Chicago.*

DR. GEORGE J. THOMAS, *Associate Professor of Surgery and Chairman, Section on Anesthesiology, University of Pittsburgh School of Medicine, Pittsburgh.*



DR. ROBERT W. VIRTUE, *Professor of Anesthesiology, University of Colorado Medical Center, Denver.*

DR. PRESTON A. WADE, *Professor of Clinical Surgery, Cornell University Medical College, New York.*

DR. FREDERICK W. WILLIAMS, *President of American Diabetes Association and Associate Clinical Professor of Medicine, New York Medical College, New York.*

DR. WOLF W. ZUELZER, *Director of Child Research Center of Michigan, Detroit.*

NOT PICTURED

HARRY W. GINTY, *Vice-President, Medical Protective Company, Fort Wayne, Ind.*

HALL E. TIMANUS, LL.B., *Attorney with Andrews, Kurth, Campbell & Bradley, Houston.*

M-5 *Pain in the Anorectal Region from the Standpoint of Causation.* JOHN R. HILL, Rochester, Minn.
(Tally Ho Room)

M-6 *Management of the Nervous Patient.* WINGATE M. JOHNSON, Winston-Salem, N. C.
(Camellia Room)

M-7 *Helpful Hints for Everyday Practice.* ARTHUR C. JONES, Boise, Idaho.
(Banquet Room 5)

M-8 *Tumors in Children.* JOHN R. SCHENKEN, Omaha, Neb.
(Banquet Room 4)

M-9 *Current Trends in Malpractice.*
MR. PHILIP R. OVERTON, Austin, Moderator;
MR. HALL E. TIMANUS, Houston;
MR. HARRY W. GINTY, Fort Wayne, Ind.;
MR. C. JOSEPH STETLER, Chicago; and
MR. JOSH H. GROCE, San Antonio.
(Banquet Room 2)

TUESDAY, APRIL 30, 8:15 TO 9:45 A. M.

Baker Hotel, Mezzanine Floor

T-11 *New Methods of Treatment of Behavioral Disorder in the Aged.* D. EWEN CAMERON, Montreal, Canada.
(Tally Ho Room)

T-12 *Medical Implications of School Failure.* REYNOLD A. JENSEN, Minneapolis.
(Banquet Room 4)

T-13 *Fractures Which May Be Safely Handled in the Office of the General Practitioner.* H. RELTON MCCARROLL, St. Louis.
(Texas Room)

T-14 *Management of Cirrhosis of the Liver.* H. B. MULHOLLAND, Charlottesville.
(Banquet Room 2)

T-15 *Unilateral Exophthalmos.* A. D. RUEDEMANN, SR., Detroit.
(Camellia Room)

T-16 *Safety Factors in Anesthesia.* ROBERT W. VIRTUE, Denver.
(Banquet Room 1)

T-17 *Surgical Complications of the Lower Extremities in Diabetes.* FREDERICK W. WILLIAMS, New York.
(Banquet Room 3)

T-18 *Anemias in Infancy and Childhood.* WOLF W. ZUELZER, Detroit.
(Banquet Room 5)

T-19 *Medical, Legal, and Insurance Aspects of the Treatment of Industrial Injuries.*
FREDERICK C. REHFELDT, Fort Worth, Moderator;
MR. SMITH PETTIGREW, Dallas;
MR. GEORGE P. GARDERE, Dallas; and
M. H. MORRIS, San Antonio.
(English Room)

WEDNESDAY, MAY 1, 8:15 TO 9:45 A. M.

Baker Hotel, Mezzanine Floor

W-21 *Long Term Management of Coronary Disease, Including the Place of Surgery and Other Radical Treatments.* LAURENCE B. ELLIS, Boston.
(English Room)

W-22 *An Internist's View of the Optic Fundus.* JOHN B. HICKAM, Durham, N. C.
(Tally Ho Room)

W-23 *Abnormal Uterine Bleeding with Particular Reference to Dysfunctional Type.* ROGER B. SCOTT, Cleveland.
(Banquet Room 1)

W-24 *Differential Diagnosis of Acute Abdominal Conditions.* CALVIN M. SMYTH, Abington, Pa.
(Banquet Room 2)

W-25 *Anesthesia by the General Practitioner.* GEORGE J. THOMAS, Pittsburgh.
(Banquet Room 3)

W-26 *Treatment of Fractures in Children.* PRESTON A. WADE, New York.
(Banquet Room 5)

EXECUTIVE COUNCIL WEEK END

First Indoctrination Program; Conference of New Officers And Legislative Symposium

Approximately 350 physicians and their wives attended the sixth annual Conference of County Medical Society Officials and Symposium on Legislation and the first Indoctrination Program held in conjunction with the Texas Medical Association's winter Executive Council session, January 25-27, in Austin.

Meeting jointly in the morning, the new officers of county societies and the new members of the Association heard talks by Dr. Milford O. Rouse, Dallas, President of the Association; Dr. R. W. Kimbro, Cleburne, chairman of the Board of Trustees; Dr. J. T. Billups, Houston, chairman of the Board of Councilors; and C. Lincoln Williston, Austin, executive secretary. Dr. Denton Kerr, Houston, President-Elect, presided. Following this session, those attending the conference and symposium heard C. Joseph Stetler, Chicago, director of the Law Department of the American Medical Association, while the new members had a session on medical economics, public relations, and health insurance.

Doctors register for a full week end of activity at Texas Medical Association headquarters in Austin.

After luncheon, the Hon. Olin Teague, Bryan, Representative in Congress from the Sixth District of Texas, addressed the new officers; and the 72 registered for the Indoctrination Program heard talks on legislation, workmen's compensation laws, public health agencies, state hospitals,

and malpractice. Following Representative Teague's talk, panel discussions on increasing the effectiveness of county medical societies were held for the small, medium, and large sized county medical society officers.

New officers and new members joined again late in the afternoon for the presentation of volumes number 25,000 and 25,001 to the Memorial Library, marking its classification as a large medical library. Mrs. Mary D. Cain, editor and manager of the *Summit* (Miss.) *Sun,* spoke to the group, which concluded the day's business activities.

A summary follows.

FOR NEW MEMBERS AND NEW OFFICERS

A Look at Texas Medicine Today.—The medical profession is the only group relatively unsocialized today, Dr. Milford O. Rouse pointed out. He praised the Texas Medical Association headquarters building, the central office staff, the Memorial Library, the *Journal,* and other divisions of the central office. He mentioned a few of the many outstanding jobs being done by the 250 physicians who serve the Association on its boards, councils, and committees and the great potential of such new committees as the Committee on Problems of the Aging, on Cardiovascular Disease, on Bracero Insurance and Medical Care, and to Study Hospital-Staff Relationships. Dr. Rouse closed with words of praise for the Woman's Auxiliary and its work and with a reminder of the annual session to be held in Dallas, April 27-May 1.

The Texas Medical Association: Its Purposes and Projects; An Accounting of Stewardship—What Happens to Your $50 Dues.—Mainly addressing those present for the Indoctrination Program, Dr. R. W. Kimbro inttoduced the other members of the Board of Trustees and stressed to new members the fact that they are entitled to know what happens to their $50 dues. He pointed out that the Association's revenue is acquired primarily from three major sources, membership dues, advertising in the *Journal,* and technical exhibit booths at the annual session. Of the $50 dues, $30 goes to the General Operating Fund, $15 to the Building Fund, $3 for subscription to the *Texas State Journal of Medicine,* $1 to the Medical Defense Fund, and $1 to the Woman's Auxiliary. The Association's largest expenditures are for the Memorial Library's operating fund, Dr. Kimbro pointed out, for the annual session (the anticipated cost for the 1957 meeting is $25,000), for committee projects, and for other means to provide services to the members. Dr. Kimbro closed by reiterating that the Board of Trustees invites any member to bring questions regarding an expenditure or a policy to its attention.

Obligations of Members to Organized Medicine and Medical Ethics.—As physicians know, their prime purpose is to serve their patients, Dr. J. T. Billups said. The inheritance of the medical profession is great, and each doctor has an obligation to his profession and organized medicine. Dr. Billups pointed out that no man has a right to sit back and criticize any activities or actions; he must take an active part in his organization. If a physician learns the rules of medical ethics, he will not have any trouble, Dr. Billups stated. One misconception is that the boards of censors serve as a police body; rather, they stand ready to help and advise any member. A doctor must be careful of professional jealousy. He must not ask for a different interpretation of the rules of ethics as the interpretation is the same for all. He must uphold his professional oath.

Services of the Central Office Available to Physicians.—C. Lincoln Williston summarized the services of the central office in improving liaison with county medical societies. The Memorial Library processes more than 200 reference requests each month from doctors throughout the state; the *Texas State Journal of Medicine,* the official publication of the Association designed to help keep the doctors informed on current medical affairs, reaches more than 7,800 each month; the Physicians Placement Service serves young doctors seeking locations to practice in the state, others who desire to relocate, physicians and clinics seeking associates, and communities which need and can support a doctor; membership records are maintained, as are current biographical data on members; and the Woman's Auxiliary is assisted in its expanding activities and programs. Mr. Williston also explained the central office's activities in the field of public relations, in assisting the Association's councils and committees in executing their programs and activities, and in improving liaison with the component county societies primarily through visitations and communications.

New members take part in the first indoctrination course given by the Association. In the top picture the first indoctrinee, Dr. Robert Hausman (center), and the second, Dr. R. C. Hardy (right), both of San Antonio, hand their attendance cards to a staff member. In the lower pictures the new doctors are briefed on information of importance to them.

INDOCTRINATION PROGRAM

With Dr. Foy H. Moody, Corpus Christi, Vice-President of the Association, presiding, the Indoctrination program continued.

Medical Economic Considerations in the Practice of Medicine.—Dr. Harvey Renger, Hallettsville, chairman of the Council on Medical Economics, pointed out three aspects of the business side of a doctor's practice: insurance in relation to his practice, insurance in relation to himself, and an explanation of charges. Both group and individual contracts are available for loss of income protection, hospital expense protection, surgical expense protection, medical expense protection, and major medical expense protection. He also mentioned supplemental types of insurance: automobile, group accident and death dismemberment, life, automobile liability, and workmen's compensation. Dr. Renger suggested that a physician know the limitations of policies and that he buy his insurance to suit his needs and no more. A physician should study his insurance needs carefully and design his insurance to cover 75 per cent of his income. Dr. Renger urged the doctors to discuss fees with their patients. He stressed the fact that the fee schedule for use with the medicare program is based on maximum fees and should not be taken as an average.

Public Relations, Public Opinion, and Medical Practice.—Dr. Van D. Goodall, Clifton, a member of the Committee on Public Relations, said that the field of public relations overlaps all fields. It may be defined as the sum and total of opinions of what others think of you. Public relations is not high powered publicity, as some think. The types of public relations are internal relations among doctors and external relations with newspapers, radio, television, and other media. Dr. Goodall urged doctors to discuss fees with their patients and mentioned that the AMA has a plaque inviting such discussion. He felt doctors should be on guard against such causes of poor public relations as poor records, poor statements, lack of follow up, unitemized bills, and use of unethical collection agencies.

Voluntary Prepayment Health Insurance.—Dr. Roy T. Lester, Dallas, medical director of Group Hospital Service (Blue Cross), illustrated his talk with numerous slides. He pointed out that doctors' fees have not gone up as far or as fast as other family expenses. A yardstick to use in evaluating a hospital plan would include such questions as is it adequate, is it convenient, is it economical, is there continuity, and is there protection. To be adequate a policy must have equal benefits for members and dependents; it must be flexible and realistic; the limitations should be checked. To be convenient, the payment should be prompt and there should be ease of admission to the hospital.

Legislative Issues and Their Effect upon Medical Practice.—The most difficult task confronting a doctor today is preserving the private practice of medicine and the American system of free enterprise, said Dr. G. W. Cleveland, Austin, chairman of the Council on Medical Jurisprudence. Dr. Cleveland touched on the high spots in current legislative issues, mentioning the expansion of veterans' medical care, the broadening of medical care for military dependents, health insurance through social security, and the avowed objective of organized labor to enact a national system of compulsory health insurance. He urged physicians to keep informed of the issues and to elect to office those who may be depended upon to preserve the American way of life.

Workmen's Compensation Laws.—As medical coordinator for the Texas Employers' Insurance Association, Smith Pettigrew of Dallas explained the physician's relationship to the workmen's compensation law. He pointed out that insurance companies are administrators of the workmen's compensation laws; they do not make the laws. The law provides that the doctor report directly to the insurance company and that except for emergency treatment the insurance company must authorize medical treatment before being obligated to pay for it. Mr. Pettigrew stressed the point that the insurance company cannot authorize anything without a limited investigation to determine that the injured workman had an accident while he was in the scope and course of his employment and while furthering the interests of his employer. When in doubt, communicate with the insuring company, Mr. Pettigrew concluded.

Services to Physicians from Public Health Agencies.—Dr. Henry A. Holle, Commissioner of Health for Texas, said the profession of public health operates under a single credo: service. The Texas State Department of Health, composed of 22 divisions, is available to render service to the physicians of Texas. Among the divisions giving service to the medical profession are Laboratory, Vital Statistics, Tuberculosis Control, Communicable Disease Control, Hospital Services, Cancer and Heart, Food and Drugs, Veterinary Public Health, and Public Health Education. The health department and medical profession can work closely with mutual benefit, Dr. Holle pointed out. Regulations on school health programs, maternal and child health programs, and communicable diseases are best worked out jointly between the health department and medical society. Accurate health education programs induce eatlier visits to the physician's office for diagnosis and treatment. Communicable disease control is improved by public health laboratory services and the consultative service of health department communicable disease authorities working with prompt and complete reportings from the county. Doctors thus receive support in most—if not all—their efforts, Dr. Holle concluded.

Texas State Hospitals: Procedures for Admission.—Dr. James H. Wooten, Jr., Columbus, a member of the Board for Texas State Hospitals and Special Schools, told new doctors what facilities the state has available for mental illnesses, tuberculosis, mental retardation, epilepsy, and cerebral palsy. He urged support of the new Texas Mental Health Code, which was submitted to the Texas Legislature in January (see Dr. Wooten's guest editorial beginning on page 65 of this *Journal*), and pointed out the four procedures by which a person may be admitted to a state mental hospital under the proposed act: voluntary commitment, emergency commitment, temporary hospitalization for observation and/or treatment, and indefinite commitment.

Legal Aspects of Your Practice: Malpractice and How to Avoid It.—After a doctor receives his license to practice medicine, there are several important items for him to do and know. Philip R. Overton, Austin, general counsel of the Texas Medical Association, mentioned such items as filing of license, Identification Act, instructions about narcotics, prenatal and postnatal prophylactic measures required by law, Medical Practice Act, and the Board of Medical Examiners. Mr. Overton pointed out that the physician-patient relationship carries with it certain obligations and legal responsibilities. Malpractice suits are increasing; one survey revealed that 60 per cent of the suits were the result of inopportune remarks made by physicians because of their lack of knowledge concerning the facts or personal animosity or jealousy. Mr. Overton gave important points in preventing malpractice claims.

GUEST PRESENTATIONS

C. Joseph Stetler, Chicago.—Speaking on "Current Trends in National Legislation: What's Ahead for 1957," Mr. Stetler, who is director of the Law Department of the AMA,

stated that the increasing influence of the federal government in medical as well as other affairs is evident in the number of bills introduced into Congress. In the Eighty-Fourth Congress a total of 571 bills with primary medical implications were introduced, and 25 of them were enacted. In the first 20 days of the current Eighty-Fifth Congress 4,860 bills, including 165 of medical importance, were introduced, including those dealing with veterans benefits, social security, tax deferment, public health, and the aged.

Medicine generally has had fairly good results in its dealings with legislative measures involving frontal approaches but has fared less successfully with "piecemeal" type bills; more laws adverse to the viewpoint of most physicians have been passed in the past two years than in any comparable period before. More individuals concerned with medicine must take an active interest in legislation if this trend is to be stopped, Mr. Stetler emphasized.

Featured guest speakers for the Conference of County Medical Society Officials and Symposium on Legislation were (left) C. Joseph Stetler of Chicago, shown with Mrs. Sam E. Thompson of Kerrville and President-Elect Dr. Denton Kerr of Houston; (center) Mary D. Cain, Summit, Miss.; and (right) Congressman Olin Teague of Bryan, conferring with President Dr. Milford O. Rouse of Dallas.

The Hon. Olin Teague, Bryan.—There are two extreme sides to the question of medical care for veterans, said Mr. Teague, Representative in Congress from the Sixth District of Texas, in discussing "The Veteran and Medical Service." The Veterans Administration believes that veterans are entitled to medical care for any condition regardless of whether or not it is service connected. The American Medical Association believes that veterans are entitled only to care for conditions directly traceable to their military service. Neither of these extreme views would be practical; it would be impossible to staff and build hospitals to care for every illness of every veteran. Likewise, if only service-connected cases were admitted to veterans' hospitals, civilian charity wards would be flooded with some 71,000 cases, Mr. Teague declared.

Much criticism has been directed at the admission of veterans who are covered by workmen's compensation or private health insurance or who are otherwise able to pay for their care. A partial solution lies in modifying and strengthening admission procedures. Specifically, this would mean an extensive financial investigation and statement of the net worth of each prospective patient, estimating the average length of stay and cost of care for each, then warning him of the legal consequences of making false claims as to his ability to pay for the care. This procedure is aimed at weeding out short-term care for which many veterans are capable of paying.

Mrs. Mary D. Cain, Summit, Miss.—Nobody is more receptive to new ideas than a sick man, which gives physicians an unusual opportunity to get across their views to other people, believes Mrs. Cain, editor and manager of the *Summit Sun,* whose topic was "Big Government! Little You!"

The chief reasons why this country has big government and little people are fourfold: (1) lack of knowledge of the Constitution and Bill of Rights; (2) abuse of the sixteenth amendment with the graduated, progressive income tax and the buying of votes by government subsidies and handouts; (3) rights the federal government was never intended to have being taken by Congress, primarily by stretching the general welfare and the commerce clauses of the Constitution; (4) lack of coordinated effort in fighting back.

The only answer, in Mrs. Cain's opinion, is to get mad enough to do something about the situation, forcing the government to get out of business (as provided for in the proposed twenty-third amendment), repealing the sixteenth amendment, and coordinating the efforts of those who want to change the present trend.

INCREASING THE EFFECTIVENESS OF COUNTY MEDICAL SOCIETIES

The Small County Medical Society.—As moderator, Dr. Neil Buie, Marlin, mentioned that several of the reasons for having a county medical society, as found in his society's constitution, are fellowship, education, scientific, social, political, and economical. He introduced the panelists, Dr. R. Harvey Bell, Palestine, who spoke on legislative affairs; Dr. M. G. Hutchins, Conroe, who discussed professional relations; and Dr. E. E. Lowrey, Gatesville, who represented the smallest county society in the Association. Dr. J. J. Slaugenhops, Vernon, who was scheduled as a panelist, was unable to be present. About 20 attended.

Dr. Bell pointed out that legislative objectives are the same for any size group, with personal contact being the important factor. He suggested talking to candidates for the Legislature prior to their election and then keeping in touch. Personal communication may be by telephone or telegram, through the Woman's Auxiliary, and through others who may be encouraged to send messages concerning

particular legislation. In sending telegrams, Dr. Bell urged that they be sent individually rather than as a group and that the same wording not be used. He suggested that doctors contact their legislators even though they may know that their views coincide with medicine's and that doctors know the names and addresses of the representatives from the area.

The harmonious professional relations in Montgomery County are brought about by the discussion of problems at medical society meetings, said Dr. Hutchins. If a patient complains to a physician about another doctor, assume the doctor is right and never believe he is wrong without checking with him, Dr. Hutchins suggested. Dr. Hutchins explained the society's meeting arrangement; each month the meeting consists of a social hour, dinner, a business session, and a program. The programs are scientific, or speakers from the Texas Medical Association central office are obtained. Good attendance is stimulated by a good program and fellowship, he concluded.

Dr. Lowery pointed out the difficulty in holding regular monthly meetings for such small societies. In his group, composed of five members, four of them work together daily. The group has considered consolidation with nearby societies but prefers to function independently. The members meet in the home of one of the doctors five or six times a year. Usually they do not have a scientific program, but they have had specialists from neighboring towns give scientific programs and Audio-Digest films from the Texas Medical Association Memorial Library are used. Dr. Lowery said that the doctors in his society know the legislators personally, and he feels that they carry weight with them.

Discussion from the floor brought forth several pertinent points. Dinner meetings with the wives were credited with increasing attendance in one society. Giving each member the responsibility of preparing the program for one meeting, in cooperation with the secretary, was suggested, as was the preparation of a list of scientific speakers who would be available for programs for small societies. One physician stated that his society outlines its programs for the year and the members volunteer to get a speaker for each program. Some societies meet jointly with neighboring county societies for scientific programs with outstanding speakers. One doctor pointed out that medical subjects bring out the country doctors to society meetings whereas surgical subjects will not; when in doubt, call a urologist, he said.

The Medium-Sized County Medical Society.—With Dr. Carlos E. Fuste, Alvin, presiding, the discussion was opened by Dr. E. T. Driscoll, Midland, who spoke on increasing individual participation. First, the officers must be convinced that no work is worth while unless it is well done.

This is one of three panels which led discussions by officials of small, middle sized, and large county medical societies about problems in attendance, committee work, and legislation.

In his society, the president takes part in all local and regional medical affairs and assigns members to prepare programs. The secretary should be a long-time member of the society, well grounded in its past history and traditions; for most effective service he should remain in office over a period of years. Committees are more effective if they serve on a continuing basis and keep accurate, complete records for the use of future members. Liaison with the Woman's Auxiliary definitely is worth while, Dr. Driscoll said.

Dr. S. W. Bradford, Tyler, discussed public relations and nonscientific programs in stimulating attendance. Because of the wealth of scientific information available from other sources nearby, the society experimented with nonscientific programs, and attendance jumped from 45 to 65 per cent. Programs have included discussion of organization of the Texas Medical Association, estate planning and taxes, wills, trusts, hospital administration and health insurance, public relations, doctor-patient and doctor-press relationships, and civic responsibilities of doctors. For the most part, the programs were presented by laymen. In addition, regular reports of Association activities are given.

Dr. Mack Bowyer, Abilene, talked on implementing medical legislative objectives at the local level.

The Woman's Auxiliary has put the doctors to shame in this field, and more interest is needed on the part of doctors, he said. The legislative committee should be a separate and important entity in the society, and responsibility definitely should be spread. The committee should give a brief report of pertinent legislative facts at each meeting. Doctors should be urged to make personal contact with legislators, to know the authors of medical bills, to know who will consider and pass on these bills, and to present their ideas clearly and intelligently to congressmen.

Dr. Herbert Donnell, Waxahachie, suggested ways of stimulating attendance. The basic elements are to provide a good place to meet, good food, a good program, and reminders of the meeting to every member. Doctors also need to be stimulated along legislative lines and instructed to attend precinct conventions. Young doctors, and all doctors, should be fighting for the chance to fight socialized medicine, Dr. Donnell said.

Some of the points mentioned in general discussion were (1) Medical societies should organize speakers' bureaus on medical matters for lay groups. (2) In Brazoria County, the secretary has compiled a list of daily and weekly newspapers and sends news releases to all of them within 24 hours after meetings. Also, it is helpful to have a definite press code and to cooperate with reporters. (3) Compulsory attendance was discussed briefly, and it was brought out that the House of Delegates had defeated such a proposal three to one at the 1956 meeting. (4) One of the best methods of increasing attendance and keeping it on an even keel is to have a dinner for doctors and their wives, then separate into two groups for meetings. Wives will see that their husbands attend a meeting to which they are invited.

The Large County Medical Society.—About 40 were present for the panel discussion moderated by Dr. Elliott Mendenhall, Dallas.

Dr. John L. Matthews, San Antonio, said that it is important to keep all members abreast of business affecting the society and of action taken by the executive board; this can be done best by some form of newsletter. The president should delegate rsponsibility to the proper committee, and as many committees as can be useful should be appointed to activate members. Definite steps should be taken to build up a cordial relationship with legislative representatives.

Dr. C. H. McCuistion, Austin, substituting for Dr. William E. Powers, Amarillo, reported that Travis County has

been devoting its programs to nonscientific matters except for an occasional visiting expert, emphasizing legislative and socioeconomic matters. It is thought that this not only offers a means of presenting information of great importance to the profession but also affords programs of more general interest, thus promoting attendance. The medical profession in Travis County has three corporations, the medical society, a blood bank, and a medical service bureau, the latter of which is set up for profit and which operates a journal, collection agency, telephone answering service, and employment bureau. A single executive supervises the activities of all three corporations, and income from the third has been sufficient to make it conceivable that county society dues might be reduced.

Dr. William Klingensmith, Amarillo, expressed the belief that attendance probably is boosted best by self interest and friction, so that programs which have definite application to a member or which afford an opportunity for disagreement and argument have an important function. Physicians should take a greater lead in many community health problems such as care of the indigent and public health questions, and these projects lend themselves to interesting and productive discussion. Potter County Medical Society recently adopted measures to prohibit members who fail to attend at least 50 per cent of its meetings from voting and holding office. Results of this step cannot be evaluated yet.

Because El Paso is somewhat isolated from the rest of the state, it has problems different from those elsewhere, Dr. Russell L. Deter, El Paso, pointed out, but the same thing is true to some extent everywhere: what will be effective in one society may not be in another. El Paso has found it helpful to have a secretary-elect as well as a president-elect and to encourage delegates to the Texas Medical Association House of Delegates to attend meetings of the executive committee to keep abreast of local problems and opinions. The medical profession has attempted to develop a cooperative and friendly behavior between competitors and to assist young physicians in getting established. The society has created a loan fund for medical students from the county by assessments on its members.

In further discussion of attendance by the panelists and from the floor, it was pointed out that in some instances (Nueces County, for example) the inclusion of the cost of meals held in conjunction with meetings as a part of dues has encouraged regular attendance. The East Harris branch of Harris County Society has found its attendance and interest much improved since establishment of a separate unit working with but holding independent programs from the main society.

As regards committee work, Dr. McCuistion reminded that staggered membership terms, permission of a doctor before he is appointed to membership on a committee, proper channelization of matters, and advance written reports from committees wanting society action can increase the effectiveness of committee and society work. Committees that have proved their usefulness in unusual ways include a United Physicians Fund committee in Bexar County, through which physicians may make all of their charitable contributions if they choose, referring all requests for donation to this fund and receiving credit for a donation when the committee allocates some of its money to a project. In El Paso a disaster committee has worked closely with other community agencies to develop an over-all plan for use in emergencies, each physician being assigned to a specific responsibility where he can serve best. In Travis County, the husband of the woman's auxiliary president has been named chairman of the medical society's committee for liaison with the auxiliary, a procedure which seemingly is working satisfactorily.

Legislative efforts, the group suggested, will be more effective if individual physicians make their views known to their legislative representatives, not confining their communications to medical subjects, and encourage laymen to help fight medicine's battles. Although some legislators indicate that they are not impressed by mass communications relative to a single measure, their voting undoubtedly is affected by knowledge of what their constituents want. Cameron-Willacy Counties Medical Society has found it ef-

The Memorial Library of Texas Medical Association honored those who have helped it grow to its present place of service. It in turn was honored by presentation of two rare books, one of which is shown as Mrs. Richard C. Bellamy of Liberty hands it to Board of Trustees chairman Dr. R. W. Kimbro of Cleburne (left) and by a gift of $50,000 from the late Dr. Sam E. Thompson of Kerrville, presented by Mrs. Thompson to Dr. Kimbro (right).

fective to have five contact persons in different towns who can be alerted when important legislation is under consideration, each of these in turn having five persons, and finally each of these having five more to call.

Dr. Mendenhall summed up by stating that doctors should remember to be all-round citizens and that the initiative of officers often can put to effective use the abilities and energies of members.

MEMORIAL LIBRARY CEREMONY

Volumes number 25,000 and 25,001 were presented to the Memorial Library in a special ceremony presided over by Dr. Milford O. Rouse, Dallas, President of the Association. The acquisition of these two volumes marks the classification of the Library as a large such medical facility. Presented to Dr. R. W. Kimbro, Cleburne, chairman of the Board of Trustees, by Mrs. Richard C. Bellamy, Liberty, President of the Woman's Auxiliary to the Association, were "De Re Medicus" of Cornelius Celsus, dated 1528-1529, in memory of the late Dr. Sam E. Thompson of Kerrville, and a first edition of William Beaumont's "Experiments and Observations on the Gastric Juice, and the Physiology of Digestion," dated 1833, in memory of Dr. Sam N. Key, Sr., of Austin.

Mrs. Thompson presented a deposit for $50,000 to Dr. Kimbro, which was a bequest from her late husband for Library accessions. Dr. Kimbro recognized the contributors of large gifts to the Library and related a brief history of the Library and its growth (see January *Journal*, page 54).

EXECUTIVE COUNCIL HEARS PROGRESS REPORTS

A series of reports calling attention to activities of the Texas Medical Association's committees was heard by the Executive Council in session January 27 in Austin. Approval was given to most of the reports, although in some instances toward the end of the meeting the reports were merely received because dwindling attendance of voting members made it undesirable, as some of those present pointed out, to take action on important problems.

Items called to the attention of the Council include the following:

Councilors.—The Councilors anticipate proposing changes in the Association By-Laws (1) to permit formation of branch medical societies in congested counties, (2) to give a member the choice of being tried by the executive board of larger county medical societies or by the entire society, and (3) to limit a physician to joining only an adjacent county medical society when the society having jurisdiction has refused membership. The Councilors also expressed concern that important business is handled by a small minority of the Executive Council toward the end of meetings.

Trustees.—As directed by the House of Delegates, the Board of Trustees negotiated an agreement with the Department of Defense for participation in the medicare program for dependents of military personnel. The agreement will expire June 30, and a full report will be given to the House of Delegates in April so that a decision can be made as to whether or not the contract should be extended and what if any changes should be made. The financial position of the Association remains good, with a modest excess of revenue over expenditures. An allocation for direct expenses of the President has been provided, as requested by the House; approximately $1,700 has been granted for use by the Committee on National Emergency Medical Service for use in a civil defense field trial; $6,000 in salary increases to Texas Medical Association staff have been awarded; and funds for publication of the booklet "Facts to Protect You and Your Patient" have been appropriated. The mortgage on the headquarters building has been reduced to $150,000 from the original $415,000; $26,000 of the $61,000 borrowed from the Association's Medical Defense Fund has been paid back; and $130,000 from the $180,000 borrowed from the General Operating Fund has been paid back. Although subscription rates for the *Journal* have been increased for nonmembers, rates for members will remain at $3, the same amount charged since 1927.

Medical Defense.—Results of a recent malpractice survey will be available by the time of the annual session, and copies of a revised edition of "Facts to Protect You and Your Patient" will be furnished members of the Association as soon as they are available. The refresher course on malpractice to be held during the annual session should be of interest to members.

Medical Jurisprudence.—Pending legislation considered by the Council on Medical Jurisprudence and acted on by the Executive Council is reported in the news section of this *Journal.*

Scientific Work.—Plans for the session in Dallas, April 27-May 1, are nearing completion. Approximately 30 programs to be presented by scientific sections and specialty societies will include subjects of interest to almost any physician. These programs, general meetings, and refresher courses will make use of 24 guest speakers. Motion pictures, exhibits, and entertainment will help round out the program. Preregistration by mail will simplify registration for the annual session. There will not be mail registration for refresher courses, but tickets should be obtained upon arrival in Dallas. Hotel rooms may be reserved through the Committee on Hotels, Dallas County Medical Society, 433 Medical Arts Building, Dallas.

Mental Health.—The Texas Academy of General Practice has appointed a liaison committee to work with the Texas Medical Association's Committee on Mental Health. A proposed bill to certify psychologists will be considered in cooperation with the Texas Neuropsychiatric Association. Dr. Francis J. Gerty, chairman of the Department of Psychiatry at the University of Illinois School of Medicine, had given a preliminary report on his consultation relative to the mental health facilities and needs of Texas before the committee and also spoke to the Executive Council.

Medical Economics.—The Physicians Placement Service operated through the headquarters office under supervision of the Council on Medical Economics served 308 physicians and 115 communities during 1956; 77 of the doctors located in Texas, and 28 towns were found doctors. It was recommended that county medical societies affected by governmental or other inroads into private practice appoint committees to investigate such inroads and work closely with the Subcommittee of the Council on Medical Economics to Study Contract Medicine. Efforts also should be directed toward determining the extent to which federal agencies are rendering medical service to civilian personnel at taxpayers' expense, reporting results to the Council on Medical Service of the American Medical Association and encouraging repeal of national laws which permit such encroachment.

Medical Education and Hospitals.—The Council on Medical Education and Hospitals recommended supporting the University of Texas Postgraduate School of Medicine and the Texas State Board for Hospitals and Special Schools in their requests for financial aid from the Legislature. It was suggested that the Joint Board for Accreditation of Hospitals work closely with the Private Clinics and Hospitals Association of Texas in drawing up standards for meeting

the problems of small clinics and hospitals. A subcommittee of the council had reported the importance of studying the need for additional medical educational facilities in the state. Upon recommendation through a minority report from the council amended from the floor, the Executive Council urged the Legislature to move toward the establishment of additional medical educational facilities in the form of a third medical branch of the University of Texas to be located in Bexar County.

Public Relations.—The excellence and volume of entries in the Anson Jones Award competition were called to the attention of the Executive Council. It was recommended that the Woman's Auxiliary be given display space at the annual session to present its activities, especially its Christmas card for 1957, orders for which will be taken at that time. It was suggested that misleading advertising on television and in newspapers be handled on a local level.

Physicians and their wives take time off from the busy program to visit over coffee and cookies served by members of the Woman's Auxiliary.

Tuberculosis.—State subsidy to tax supported hospitals other than state hospitals for treatment of tuberculosis was endorsed again. Doctors were urged to report every case of tuberculosis to the State Department of Health and to notify local health departments of tuberculous persons who are a health menace and refuse proper treatment. The committee on Tuberculosis favored continuation of the state cigarette tax with the funds now allocated to state hospitals being kept for that purpose until the state hospital system is completely rehabilitated. The committee expressed alarm at the use by some doctors of unorthodox and unrecognized regimens of drug treatment for tuberculosis.

Public Health.—Proposed legislation in the public health field was approved in principle by the Committee on Public Health and referred to the Council on Medical Jurisprudence for consideration.

Blood Banks.—A comprehensive review of blood banking problems and progress on the national and regional level was given. Attention was called to the need for maintaining the efficiency of technologists in the field, a program for this purpose being adopted by the American Association of Blood Banks; a national clearinghouse program for exchange of blood and blood credits now in operation; the Joint Blood Council, a policy-deliberating body with representatives from five organizations including the American Medical Association; and expansion of the Texas Association of Blood Banks to the South Central Association of Blood Banks.

Patient Care.—The Texas Commission on Patient Care is being asked to study the need for medical secretaries, to consider the desirability of a two year course for them in junior colleges, and to meet with the various groups concerned in efforts to solve this personnel shortage. It was reported that representatives from the Woman's Auxiliary to the Texas Medical Association and the Private Clinics and Hospitals Association of Texas have accepted ex officio membership on the Texas Commission on Patient Care.

National Emergency Medical Service. — Announcement was made of "Operation Rebound," a maneuver planned for March and simulating a bomb disaster in Houston with surrounding counties to receive disaster victims, for which the Board of Trustees has allocated approximately $1,700 to help defray expenses of two 200-bed hospital trailers. This equipment will be available later for use by other county medical societies. The possibility of a condensed course in the management of mass casualties presented by the Army Medical Service School, Fort Sam Houston, on a closed television circuit for a nationwide medical and paramedical audience was referred to the Council on Scientific Work.

Cardiovascular Diseases.—A speakers bureau for cardiovascular subjects has been set up; further information will be distributed soon to county medical societies. Plans for publication of information in this field in the *Journal* have been formulated.

Health Costs.—Although action on its recommendations was delayed for study and consideration by the House of Delegates, the Committee for Study of Health Costs suggested that a fee schedule using the unit system be prepared by the appropriate committee of the Texas Medical Association and be distributed to each member; that a grievance committee on the state level be established to receive complaints of insurance companies which believe an overcharge is being made; and that an insurance education program be carried to the medical profession through every possible means so as to encourage the success of all types of health insurance, especially catastrophic coverage.

Liaison with State Bar of Texas.—Recommendations to be presented for action by the House of Delegates include encouragement of efforts to let young doctors know they are necessary to the litigation process and to prepare them for testifying; providing for disciplining by his own profession of a doctor who is a party to gross irregularity; joint meetings between doctors and lawyers on the city or county level; and preparation of a code jointly by the Texas Medical Association and the State Bar of Texas setting forth principles applying to interprofessional conduct and practice. The motion picture "The Medical Witness" scheduled for showing at the annual session was commended.

Problems of Aging.—The state Committee on Problems of Aging expects to cooperate with the American Medical Association's Committee on Aging in a regional conference to be held at the time of the annual session in Dallas.

Rural Health and Doctor Distribution.—Plans to stimulate interest in rural health problems were reported.

School-Physician Relationships.—Approval was given to a bulletin entitled "Planning and Operating a Program for the Detection and Correction of Eye Defects Among School Children of Texas," submitted by the Texas Ophthalmological Association. It was agreed that the policy adopted by the House of Delegates on school child immunization should apply to the administration of Salk vaccine although each county medical society should make final decisions relating to its individual situation.

Scientific Exhibits.—Total scientific exhibits now in prospect for the 1957 annual session number 47 in comparison

with 38 at the 1956 session. There still are not satisfactory representations in pediatrics, dermatology, obstetrics, otolaryngology, and neuropsychiatry, and exhibits in those fields are solicited. Efforts are being made to encourage preparation of exhibits of greatest education value by indicating to prospective exhibitors the weighting of points on which awards for excellence will be made. Efforts to increase attendance at the exhibits also are being made. An amendment to establish the Committee on Scientific Exhibits as a standing committee will be submitted to the House of Delegates.

American Medical Education Foundation.—There is a lack of knowledge of the purposes of the American Medical Education Foundation among doctors of Texas, the Committee for American Medical Education Foundation believes, although response to appeals for funds after adequate explanation has been good. Methods of disseminating information should be improved and a long term committee considered.

Bracero Insurance and Medical Care.—Problems raised by the large number of braceros admitted annually to this country, a high rate of contagious diseases among them, and their treatment and insurance were reported. The Committee on Bracero Insurance and Medical Care recommended that the appropriate federal and state agencies be notified of the inadequacy of health examinations conducted at ports of entry, that information on the large amount of preexisting disease be made available to these agencies, that no bracero be admitted to this country until he has been screened for disease conditions, and that physicians in Texas who work with insurance companies insuring braceros hold to the principles of free enterprise.

Executive Secretary.—Earlier in the meeting the Executive Secretary mentioned briefly some of the activities carried on in the central office. Points he mentioned include the following: The *Texas State Journal of Medicine* has incorporated 20 major changes in typography, format, and subject matter during the past year as a result of opinions expressed by doctors in a state wide survey; 336 additional pages of editorial material were published in 1956, an increase of 39 per cent over the preceding year; net advertising revenue of $65,000 for 1956, an increase of 51 per cent since 1954, has been attained. The Memorial Library booked 899 motion picture showings in 1956, an increase of 31 per cent over the year before, and processed an average of more than 200 reference requests per month. The Physicians Placement Service has been reorganized and a larger percentage of doctors listed with the service are being placed and a larger percentage of community vacancies are being filled than before. The Texas Medical Association ended the year 1956 with a membership of 7,569, an increase of 3.5 per cent over the preceding year, which is less than the average annual increase during the past 15 years. Membership of Texas doctors in the American Medical Association for 1956 was 7,009, but of these 478 are associate members and not counted in the allocation of delegates. Approximately 2,500 completed personnel data forms have been received in a project to compile up-to-date biographical information on each member. The printing department printed more than a million and a half pieces of literature in 1956, an increase of 47 per cent over 1955. All technical exhibit booths for the 1957 annual session have been sold; these 100 booths will net the Association more than $12,000.

Woman's Auxiliary.—Mrs. Richard C. Bellamy, Liberty, President of the Woman's Auxiliary to the Texas Medical Association, spoke briefly. She reported that the Auxiliary netted approximately $1,700 from its sale of Christmas cards to benefit the American Medical Education Foundation.

Officers and Committee Changes

Several changes have taken place in Texas Medical Association official positions.

Dr. Lynn Hilbun, Henderson, resigned January 26 as Vice-Councilor of the Eleventh District. Dr. W. P. Higgins, Jr., Fort Worth, was appointed Vice-Councilor of the Thirteenth District January 26.

Dr. Delphin von Briesen, El Paso, resigned from the Council on Medical Education and Hospitals February 2.

Dr. Joe R. Donaldson, Pampa, was appointed chairman of the Committee on Public Relations January 26 to fill the vacancy created by the resignation of Dr. William M. Crawford, Fort Worth, November 12, 1956. Terms of office were designated January 26 for the Committee on Public Relations, and they are as follows: Dr. Donaldson, 1961; Dr. A. F. Clark, Jr., San Antonio, 1957; Dr. Glenn D. Carlson, Dallas, 1958; Dr. Raleigh R. Curtis, Temple, 1958; Dr. Van D. Goodall, Clifton, 1959; Vacancy, 1959; and Dr. Thomas Royce, Houston, 1960.

Dr. K. P. Wittstruck, Waco, was appointed a member of the Committee on Blood Banks January 14. He succeeds Dr. Tom M. Oliver, Waco, who resigned January 10.

Dr. Luke W. Able, Houston, was appointed to the State Committee for American Medical Education Foundation October 31, 1956. Dr. Elliott Mendenhall, Dallas, was named an Appointee to Advisory Committee to Texas State Hospitals and Special Schools November 30, 1956.

Members of the newly appointed Committee on Bracero Insurance and Medical Care include Dr. C. E. Oswalt, Fort Stockton, chairman; Dr. S. W. Bohmfalk, Weslaco; Dr. J. G. Rodarte, Temple; Dr. J. W. Matthews, Edinburg; Dr. George A. Hoffman, Fort Stockton; and Dr. J. L. Moet, LaFeria.

Local Committees

Dr. Ridings E. Lee, Dallas, chairman of the Committee on General Arrangements for the Texas Medical Association's forthcoming annual session, has appointed the following local committees:

Committee on General Arrangements.—Dr. Lee, chairman; Dr. George M. Jones, Dr. Dale J. Austin, Dr. Robert J. Rowe, and Dr. Taylor T. Pickett.

Committee on Memorial Services.—Dr. Taylor T. Pickett, chairman; Mrs. Oscar M. Marchman, Jr., and Mrs. S. F. Harrington.

Committee on Alumni Banquets.—Dr. George M. Jones, chairman; Dr. Howard K. Crutcher, Baylor; Dr. George V. Launey, Tulane; Dr. L. F. Ritchey, Arkansas; Dr. Don G. Harrell, Oklahoma; Dr. John S. Chapman, Texas; and Dr. Hugh D. Murray, Tennessee.

Committee on Recreation.—Dr. Robert J. Rowe, chairman; Dr. O. F. (Mike) Bush, Dr. Arthur G. Schoch, and Dr. Tom M. Nash, skeet shooting; Dr. R. L. Noonan (Grand Prairie), Dr. B. C. Halley, and Dr. A. O. Loiselle, golf.

Committee on Women Physicians' Activities.—Dr. M. Ruth Jackson, chairman; Dr. Ruby K. Daniel, and Dr. Lois W. Smith.

Committee on Fraternity Activities.—Dr. Dale J. Austin, chairman; Dr. J. Gilmore Brau, and Dr. Floyd S. Franklin.

Unless otherwise indicated, all the committee members are from Dallas.

They Keep Going At 90-Plus

In this era of emphasis on leisure time and early retirement, it is becoming increasingly rare to find men actively engaged in work after the age of 65 or 70. The medical profession is a notable exception; even so, most men, whatever their occupation, retire long before reaching 90. There are, however, three members of the Texas Medical Association who have brushed the dust from their ninth decade and vigorously plunged into their tenth with not a thought of retirement. It is to these three men, Dr. J. B. Cummins, Dr. W. M. Campbell, and Dr. C. M. Cash, that this article pays tribute.

Dr. J. B. Cummins

"Go if you feel like it; go if you don't feel like it; but keep going." That is the motto of Texas' oldest practicing physician, Dr. John Bigelow Cummins, who at the age of 98 maintains an active practice in Fort Worth, and who, in his own words, needs "no wig, no eye glasses, no hearing aid, no walking cane, and no artificial teeth."

Dr. Cummins

He regularly attends meetings of the various medical organizations of which he is a member, and has supplemented his 1897 medical education (he was graduated from the University of Nashville School of Medicine) by attending numerous postgraduate courses. He once was a lecturer in obstetrics at the Fort Worth School of Medicine.

He was chosen General Practitioner of the Year of Tarrant County in 1950, and in November, 1956, he was conferred honorary membership in both the Methodist Association and Harris Hospital. He has been a member of the Texas Medical Association since 1909, and was elected to honorary membership in 1953.

Dr. W. M. Compbell

"The best doctors I know are sensible diet, quiet, and peace of mind," says Dr. William Murphy Campbell, Weatherford. Although this 97 year old physician firmly believes that a lot of medicine for minor ills is unnecessary; he is an avid reader of medical journals and keeps himself informed about the latest medical advances and new drugs by reading and attending postgraduate courses.

Dr. Campbell

When he was a young man, he purchased a copy of "Gray's Anatomy" and memorized it before entering Vanderbilt School of Medicine, from which he was graduated in 1890. "Medicine has come a long and wonderful way since then," he takes pride in telling his friends.

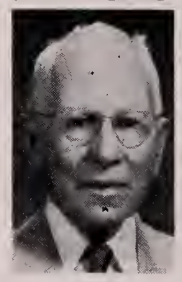
Dr. Campbell has been a member of the Texas Medical Association at various times since 1904 through the Parker County Medical Society, and was elected to honorary membership in the state Association in 1950. He also is active in the Texas Academy of General Practice.

He is a lay speaker in his church, and has taught the Campbell Bible class for more than 35 years.

About three years ago, the board of trustees of the Parker County Hospital honored Dr. Campbell by renaming the hospital "Campbell Memorial Hospital."

Dr. C. M. Cash

Dr. Clarence McClellan Cash, who will be 93 April 19, is a native of White County, Tenn., and taught school several years before studying medicine. After serving three years of preceptorship with Dr. Boyd Cornick, Knickerbocker, he attended the Fort Worth School of Medicine in 1897 and 1898, and was licensed to practice medicine in 1897. His first location was at Guion, but after about a year he founded the city of Tuscola in Taylor County, where he practiced seven years. In 1906, he formed a partnership with Dr. L. W. Hollis, Abilene, and bought a half interest in the Hollis Sanitarium. After this partnership was dissolved three years later, Dr. Cash remained in Abilene until 1913, when he moved to San Benito where he has been in active practice since.


Dr. Cash

He is a general practitioner and does everything from minor surgery to delivering babies, of which his record shows more than 5,000. He is city health officer and assistant county health officer.

Dr. Cash has continued to study and keep up with the progress in medicine and research by attending postgraduate courses at regular intervals; he seldom misses an annual session of the Texas Medical Association. In 1953, his colleagues honored him by naming him Texas' General Practitioner of the Year, and in 1954 conferred upon him honorary membership in the Association. Aside from his medical honors, Dr. Cash has served as mayor and city commissioner of San Benito and is a thirty-third degree Mason.

One of the special delights of his practice has been his work as medical adviser to the San Benito Greyhound football team for 30 years. He resigned this position three years ago.

★ American Medical Association

AMA Plans Nomenclature Institutes

The American Medical Association will conduct two, and possibly three, short courses on the use of the "Standard Nomenclature of Diseases and Operations" during 1957. The first will be March 11-13 in Roanoke, and the second August 5-7 in San Francisco. A third session probably will be scheduled for the fall. Registration will be limited to the first 100 applicants, and tuition will be free.

Medicolegol Symposiums Announced

Trauma and disease, medical expert testimony, the medical witness, and a mock trial demonstration concerning the introduction in court of the results of chemical tests for intoxication are some of the topics that will be included in the American Medical Association's second series of

medicolegal symposiums. They will be held March 15-16 in Atlanta, March 22-23 in Denver, and March 29-30 in Philadelphia.

In each city plans are being made for audiences of between 300 and 350, divided as evenly as possible between doctors and lawyers. The registration fee will be $5, and will include the cost of a luncheon.

Since registration will be limited, those interested should register in advance with the AMA Law Department, 535 North Dearborn, Chicago 10.

Rural Health Conference

Several important discussions relating to rural health will take place during the American Medical Association's twelfth annual conference on rural health in Louisville, Ky., March 7-9. Among the presentations will be the need for frequent and thorough physical examinations; the impact of modern living; rural economics in relation to health; and the migrant labor problem. The entire group will be given an opportunity to participate in discussions.

Council on Drugs Is New Name

The name of the Council on Pharmacy and Chemistry of the American Medical Association has been changed to the Council on Drugs.

★ District Societies

Thirteenth District Society

The Thirteenth District Medical Society will meet March 13 in Fort Worth. This meeting will be in conjunction with the spring postgraduate courses of the Fort Worth Academy of General Practice, and full credit will be given to general practitioners who attend the meetings.

★ County Societies

County Societies Elect

Election time has come once again, and the following county societies have reported their new officers to the Texas Medical Association:

Andrews-Ector-Midland—President, Dr. J. H. Barganier, Odessa; president-elect, Dr. Z. W. Hutcheson, Jr., Andrews; secretary-treasurer, Dr. Joseph H. McAlister, Odessa; delegate, Dr. E. T. Driscoll, Midland.

Bosque—President, Dr. W. T. Holder, Clifton; president-elect, Dr. J. T. Archer, Meridian; vice-president, Dr. A. M. Long, Valley Mills; secretary-treasurer and delegate, Dr. Van D. Goodall, Clifton.

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WOMAN'S AUXILIARY

Future Nurse Clubs

Approximately 1,000 high school girls and their sponsors are expected for the third annual meeting of the Texas Association of Future Nurses on March 30 at the Hilton Hotel in San Antonio. The association is under the sponsorship of the Woman's Auxiliary to the Texas Medical Association, the Texas Graduate Nurses' Association, and the Texas League for Nursing. The two nursing groups are represented by the Texas Committee on Careers in Nursing.

Future Nurse Clubs have been organized in approximately 150 high schools in Texas. Composed of high school girls and boys who have indicated an interest in the nursing profession, the activities of the clubs are many. However, the clubs are alike in one essential way — their purpose. "They provide a setting in which young people who are interested in nursing as a career can meet together to share that interest, to explore the opportunities and requirements in the field, to grow as individuals by working together and to learn about the community life in which they soon will participate as informed citizens and possibly as nurses."

A program consisting of a style show, a walk along the San Antonio River, and a visit to La Villita is planned for the March get together along with the business session. The high light of the meeting will be the election and installation of officers for the coming year.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1956-1957: President, Mrs. Richard C. Bellamy, Liberty; President-Elect, Mrs. H. S. Renshaw, Fort Worth; First Vice-President, Mrs. Harold Lindley, Pecos; Second Vice-President, Mrs. Ramsay H. Moore, Dallas; Third Vice-President, Mrs. William D. Nicholson, Freeport; Fourth Vice-President, Mrs. Lynn Hilbun, Henderson; Fifth Vice-President, Mrs. R. B. G. Cowper, Big Spring; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. J. L. Jinkins, Galveston; Corresponding Secretary, Mrs. E. R. Richter, Dayton; Publicity Secretary, Mrs. Joe Thorne Gilbert, Austin; Parliamentarian, Mrs. John C. Parsons, San Antonio; Executive Secretary, Miss Hazel Casler, Austin.

Everyone who uses nursing service, whether directly or indirectly, has a stake in helping to assure more and better nursing care in our hospitals and health agencies. Their sponsors believe no better way could be found to assist high school girls and boys to understand the profession of nursing than through Future Nurse Clubs.—Mrs. Edward P. Waller, San Antonio, Chairman, Nurse Recruitment, Woman's Auxiliary to Texas Medical Association.

RECENT DEATHS

DR. BAILEY R. COLLINS

Dr. Bailey Reeves Collins, director of the Wichita County Medical Society Tumor Clinic and a leader in cancer research, died instantly of a heart attack at the wheel of his automobile in Wichita Falls, Texas, November 5, 1956.

The son of Mr. and Mrs. J. W. Collins, Dr. Collins was born July 18, 1898, in Haskell. He was graduated from Haskell High School, the University of Texas at Austin, and with honors from the University of Texas Medical

DR. BAILEY R. COLLINS

Branch at Galveston in 1923. After interning at St. Mary's Hospital, Galveston, and Johns Hopkins Hospital, Baltimore, he did postgraduate work at Harvard Medical School, Boston; University of Michigan Medical School, Ann Arbor; University of Chicago School of Medicine and Cook County Hospital, Chicago; Mayo Clinic, Rochester, Minn.; and New York Medical Center, Mount Sinai Hospital, and New York Post Graduate Medical School, New York. His education was interrupted for two years of military service as a biologist in the Army Medical Corps at Fort Sam Houston during World War I.

In 1923 Dr. Collins began practicing in Wichita Falls. With the late Dr. L. MacKechney and Dr. J. A. Heyman, he

established the Northwest Medical Clinic in Wichita Falls and later entered private practice in 1935. The Wichita County Medical Society Tumor Clinic, which has sponsored annually a State Tumor Conference in Wichita Falls since 1952, was founded by the society under his direction in 1948, and he served as director until his death. He also was active in organizing the county unit of the American Cancer Society in 1950 and was medical adviser until elected vice-chairman of the unit the following year. He was named its president in June, 1956. He was on the executive committee of the Texas Division, American Cancer Society, and in this capacity was service chairman for Texas.

A member and past president of the Wichita County Medical Society, Dr. Collins also belonged to the Texas and American Medical Associations. In 1940 he was chairman of the Section on Medicine and Pediatrics for the Texas Medical Association. The Wichita County Medical Society honored Dr. Collins in 1951 with a citation "in recognition of his efforts toward the elevation of the standards of medical practice and the enlightenment of the laity." It was the only such award given by the society.

Dr. Collins helped to establish the Wichita Health Unit and was on its advisory board for many years. He was a member of Alpha Omega Alpha honorary medical fraternity and Alpha Mu Pi Omega medical fraternity; a member of the board of directors of Wichita General and Bethania Hospitals, being president of the latter; a director of the Parker State Bank, Wichita Falls; a board member of the Wichita Falls Symphony Association and active in symphony promotion; a thirty-second degree Scottish Rite Mason and a Shriner; and a member of the Baptist Church, Wichita Falls Golf and Country Club, and Wichita Falls Petroleum Club.

Dr. and Mrs. Collins traveled extensively; in 1950 Dr. Collins attended the International Congress on the Study of Cancer in Paris, and that same summer he studied blood diseases in Vienna. In 1953, he attended the International Congress of Medicine in Edinburg, and went to Queen Elizabeth's coronation as a correspondent for his local newspaper. Later, his articles were published in book form.

Dr. Collins took a great interest in the high school Latin Club, and each year he showed pictures of Latin countries and spoke about his travels there. He was an avid photographer and a lecturer on the Holy Land, which he and his wife visited.

Nancy Jane Harlin, a native of Wichita Falls, and Dr. Collins were married in Glendale, Calif., in January, 1929. She survives, as do two sisters, Mrs. William B. Ward of Wichita Falls and Mrs. Larry Hibbs of Tulsa.

A tribute was paid to Dr. Collins for his work with the cancer society by Walter Winchell in his broadcast on November 18 and in his national column on November 19. Bethania Hospital personnel also paid tribute to Dr. Collins in local newspaper articles.

DR. J. H. DORMAN

Dr. Joseph Harold Dorman, a founder-member of the American Board of Surgery, died suddenly at his home in Dallas, Texas, on December 7, 1956.

Born August 19, 1889, in Bruceville, Texas, Dr. Dorman attended Dallas public schools and was graduated in pharmacy from Baylor University in Dallas in 1910. In 1912 he was graduated from Baylor University College of Medicine in Dallas. He interned at Baptist Sanitarium (Baylor Hospital) in Dallas and entered private practice of medicine in that city in 1914. In December, 1916 he entered the British Army Medical Corps and later transferred to the American forces when this country entered World War I. In 1919 Dr. Dorman did postgraduate work at the University of Edinburgh, Scotland, and thereafter returned to Dallas to re-enter private practice. His chief interest at that time was bone surgery.

For many years Dr. Dorman was a staff member of Baylor University College of Medicine, then in Dallas, serving as an instructor in surgery. He was a retired clinical associate professor of surgery at the Southwestern Medical School of the University of Texas, in Dallas. Dr. Dorman acted as surgeon for the Cotton Belt Railroad and Proctor and Gamble Company in Dallas.

Dr. Dorman had been a member of the Texas Medical Association through the Dallas County Medical Society continuously since 1915 except for the time when he was in military service. He was a member of the American Medical Association, Southern Medical Association, American College of Surgeons, Dallas Southern Clinical Society and the Texas Traumatic Surgical Society, which he was serving as president at the time of his death. He was a Scottish Rite Mason.

DR. J. H. DORMAN

Miss Jessie Rodger of Scotland became Dr. Dorman's wife in 1918; they were married in Norwich, England. Dr. Dorman is survived by his wife, a daughter, Mrs. Cecil E. Gaulding, Jr.; a son, Dr. George W. Dorman; his mother, Mrs. George I. Dorman, Sr.; two brothers, George I. Dorman, Jr., and Robert H. Dorman; and five grandchildren, all of Dallas.

DR. BOLIVAR C. ANDREWS

Dr. Bolivar Cornelius Andrews, Dallas, Texas, an honorary member of the Texas Medical Association since 1949, died December 1, 1956, in a Dallas hospital after a long illness.

Dr. Andrews was born on April 15, 1878, in Canton, Van Zandt County, the son of Nancy Jane and Bolivar Cornelius Andrews, Sr. After completing his preliminary education in Canton public schools, he attended Myrtle Springs College, Myrtle Springs, and Dallas Medical Col-

lege, which later was merged into Baylor University College of Medicine, Dallas, and was graduated in 1908 from Barnes Medical College, St. Louis. He practiced in Mabank, Kaufman County, until 1919 when he moved to Dallas, where he practiced until his retirement in 1948. He lived for a time between 1951 and 1953 in Canton and Tyler.

While he was in Mabank, Dr. Andrews served as president of the Kaufman County Medical Society. He was a

DR. B. C. ANDREWS

member of the Dallas County Medical Society and the Texas and American Medical Associations. He also was a Mason, a Shriner, and a Knight Templar. He belonged to the Methodist Church.

On October 1, 1902, Dr. Andrews married Miss Katie Mae Coleman in Mabank. She survives, as do their three daughters, Mrs. Frank Ayres, Mrs. B. J. Schmit, and Mrs. A. W. Lewis, all of Dallas; their two sons, Percy Andrews of Tyler and B. C. Andrews, Jr., of Pharr; a brother, M. C. Andrews of Athens; five grandchildren; and four great grandchildren.

DR. M. LEE WOODWARD

Dr. Mortimer Lee Woodward, San Angelo, who had been an honorary member of the Texas Medical Association for more than 20 years, died of cancer and uremic poisoning December 6, 1956, in a Lampasas, Texas, hospital.

Born on July 28, 1885, in Queen City, Cass County, the son of Dr. M. M. and Rosa E. (Oliver) Woodward of San Angelo, Dr. Woodward received his medical training at the University of Tennessee College of Medicine, Memphis, in 1922, after being graduated from the Abbott, Texas, High School and Texas Christian University, Fort Worth. He was a registered druggist for about 15 years before entering medical school. As an intern, he was house physician and surgeon at the Baptist Memorial Hospital, Memphis, and began his private practice of medicine in Fort Worth in 1922.

Dr. Woodward retained his membership in the Texas Medical Association through the Tarrant County Medical Society while he was living in Deming, N. Mex., San Angelo, Bandera, and Lampasas, where he developed ranches after ill health forced him out of active medical practice. He became an honorary member of the Texas Medical Association and the Tarrant County Medical Society in 1934. He was a member of the Thirteenth District Medical Society and the Fort Worth Academy of Medicine, Phi Chi medical fraternity, the Masonic Lodge, Sons of the American Revolution, and Sons of the Republic of Texas. A Baptist, Dr. Woodward was from a family of physicians. His brother, the late Dr. S. A. Woodward, was the last dean of the old Fort Worth School of Medicine.

Surviving Dr. Woodward are his wife, the former Miss Geneva Peach of Fort Worth, a registered nurse; three brothers, Dr. Valin R. Woodward of Austin, Dr. C. Smith Woodward of Arlington, and Dr. Lewis O. Woodward of Albuquerque; and one sister, Mrs. Robena W. Nussbaumer of Midland.

DR. MALCOLM ALVAH BOONE

Dr. Malcolm Alvah Boone, Dallas, Texas, died in a local hospital November 23, 1956, of a coronary occlusion.

Dr. Boone was born June 1, 1875, in Oxford, Miss., and was the son of William Bascom and Betty (Patton) Boone, attended Toccopola College, Toccopola, from which he was graduated in 1892. He entered the Memphis Hospital Medical College, Memphis, Tenn., but received his doctor of medicine degree from the University of the South Medical Department, Sewanee, Tenn., in 1898. He practiced briefly in Thaxton, Miss., before moving to Jonesboro, Texas, for about 12 years; he also was located in Hamilton for about seven years. In 1917, Dr. Boone began his practice in Dallas, where he remained until the time of his death. He took postgraduate work in New York in 1918.

DR. MALCOLM A. BOONE

He was a member of the Dallas County Medical Society, Texas Medical Association, American Medical Association, and Grace Methodist Church, of which he was a steward for 38 years. In 1949, he received a certificate of merit from the University of Tennessee for 50 years of service as a

physician, and he also was a charter member of the Fifty Year Club in Texas.

The former Miss Mary Baker and Dr. Boone were married in Hamilton in 1903. She survives, as do two sons, M. B. Boone, Irving, and W. B. Boone, Dallas; four daughters, Mrs. Emily Henson and Mrs. Margaret Ackerman, Dallas; Mrs. Mildred Haden, Lake Village, Ark.; and Mrs. Sybil Crews, Lafayette, La.; seven grandchildren; and two great-grandchildren.

DR. GEORGE H. PASCHAL

Dr. George Hugh Paschal, San Antonio, Texas, died at his home December 17, 1956, of a myocardial infarction.

He was born March 4, 1894, in San Antonio, and was the son of one of the most farsighted and influential early presidents of the Texas Medical Association, the late Dr. Frank Paschal, and Ladie (Napier) Paschal. Both were pioneer residents of San Antonio. He was a grandson of Franklin Lafitte Paschal, a lieutenant in the Texas army and sheriff of Bexar County during the republic. After attending public schools in San Antonio, Dr. Paschal entered the University of Texas, Austin, where he received his premedical training. He was graduated from the University of Texas Medical Branch, Galveston, in 1921, and interned in the Robert B. Green Memorial Hospital, San Antonio. In Grace Hospital, New Haven, Conn., he spent a year in residency in anesthesiology, and specialized in that aspect of medicine throughout his 35 years of practice in San Antonio.

DR. GEORGE H. PASCHAL

Dr. Paschal had been a member of the Texas Medical Association through the Bexar County Medical Society continuously since 1923, and also was a member of the American Medical Association, American Society of Anesthesiologists, San Antonio Society of Anesthesiologists, International Society of Anesthesiology, San Antonio Surgical Society, San Antonio Country Club, and the Presbyterian Church. He was a fellow of the American College of Anesthesiologists, diplomate of the American Board of Anesthesiology, and a past president of the Texas Society of Anesthesiologists. He acted as civilian consultant in anesthesiology at the Brooke Army Medical Center, San Antonio.

Miss Mary Louise Steele and Dr. Paschal were married in San Antonio June 20, 1923. She survives, as do two sons, George Hugh Paschal, Jr., and James Steele Paschal, both of San Antonio; one brother, Dr. Frank L. Paschal, San Antonio; and two sisters, Mrs. Nellie Paschal Walthall, San Antonio, and Mrs. Betty Paschal Sanders, Pearsall.

DR. E. BRUCE MOSS

Dr. Eli Bruce Moss, Junction, Texas, died November 29, 1956, of heart failure.

A native of Columbus, Ky., Dr. Moss was born July 14, 1883, the son of T. W. and Kate (Remly) Moss. After attending the Columbus public schools and Northern Indiana Normal School, Valparaiso, Ind., Dr. Moss received a degree in pharmacy from Valparaiso University in 1902 and in medicine from the American College of Medicine and Surgery (now Loyola), Chicago, in 1905. He served an internship at Frances E. Willard Hospital, Chicago, and remained in that city to practice and as an instructor and then associate professor of anatomy and surgery at his alma mater until 1937, when he moved to Junction. He was in practice there until the time of his death.

Dr. Moss belonged to the local medical society in Chicago and since his location in Texas to the Kimble-Mason-Menard-McCulloch Counties Medical Society, Texas Medical Association, and American Medical Association. A member of the National Guard while he resided in Chicago, Dr. Moss came to Texas with General John J. Pershing in 1915 and saw service as a major in France thereafter. He was cited by the commander of his field artillery regiment for rendering first aid to wounded men under fire near Verdun in 1918.

Surviving Dr. Moss is his wife, the former Miss Ethel Davis, whom he married March 1, 1913, in Chicago. A daughter, Miss Ethel Marie Moss of Dallas, also survives.

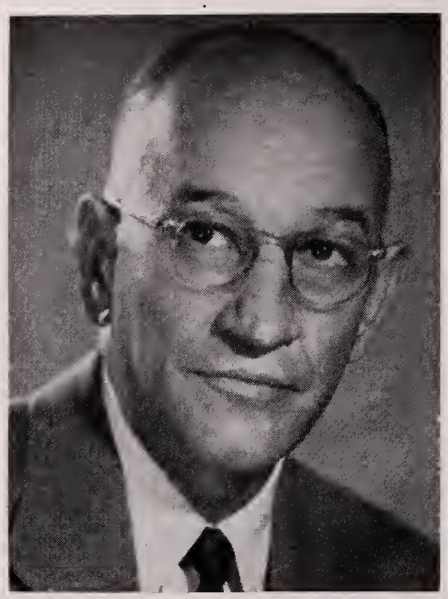
DR. J. MANNING VENABLE

Dr. John Manning Venable, San Antonio, Texas, died December 15, 1956, of a coronary attack. He had been slated to become chairman of the Bexar County Medical Society's board of trustees in January.

Born September 3, 1891, in Chapel Hill, N. C., Dr. Venable was the son of Dr. Francis P. and Sally C. (Manning) Venable. The elder Dr. Venable was president of the University of North Carolina for many years. After receiving his early education in the local schools, Dr. Venable obtained his bachelor of arts degree and two years of medical training at the University of North Carolina there. He was graduated in medicine from Johns Hopkins University, Baltimore, in 1914. He then served an internship at St. Luke's Hospital, New York, where he later did postgraduate work; he also did postgraduate work at Johns Hopkins. Since 1919 he had been in practice in San Antonio, specializing in urology, a field in which he was certified in 1947. Prior to beginning his practice in San Antonio, Dr. Venable saw service in this country and Europe as a first lieutenant in the Army Medical Corps.

A member throughout his career of the Bexar County Medical Society, Texas Medical Association, and American Medical Association, Dr. Venable was president of his county society in 1952. He was vice-president of the Southern Medical Association in 1935; a member of the Ameri-

can Urology Association, South Central Branch of the American Urology Association, and Texas Surgical Society; and a fellow of the American College of Surgeons. He also belonged to the Presbyterian Church and the San Antonio Country Club. He listed his "yard" and golf as hobbies, and he greatly enjoyed his two grandsons.



DR. J. MANNING VENABLE

On June 5, 1920, in New York, Dr. Venable and Miss Florence E. Birdsall were married. Mrs. Venable; a daughter, Mrs. Edward Frankstone of San Antonio; three sisters, Mrs. W. C. Coke, Chapel Hill, N. C.; Mrs. L. V. Sutton, Raleigh, N. C.; and Mrs. Nelson Wescoat, Moorestown, N. J.; and one brother, Dr. Charles S. Venable, Wallingford, Pa., who was President of the Texas Medical Association in 1943-1944; and two grandsons, David and Manning Frankstone, both of San Antonio, survive.

DR. C. F. WINFIELD

Dr. Carra Fanin Winfield, Alice, Texas, died December 17, 1956, of cancer.

Dr. Winfield was born in Baileyville, Milam County, August 10, 1883. He attended John Tarleton College, Stephenville, and Marble Falls Academy, Marble Falls, and received his doctor of medicine degree from the University of Texas School of Medicine, Galveston, in 1908. He practiced successively in Big Creek, Fuqua, Honey Island, Doucette and Robstown, much of the time as doctor for lumber companies, before moving to Alice 25 years ago. There in 1931 he and Dr. G. G. Wyche founded the Physicians and Surgeons Hospital, still the only hospital in Alice. Dr. Winfield had retired from active practice several years ago, but he continued to manage his other interests and had been ill only a short time.

Dr. Winfield was a member of the Texas and American Medical Associations through the Brooks-Duval-Jim Wells Counties Medical Society, of which he was president in 1937.

On May 29, 1943, Dr. Winfield married Miss Ruby Chrisman, a nurse, in Rockport. She died in 1946. He is survived by a half sister, Mrs. Vorgie Inell Hill, and a nephew, Robert Allan Hill, Jr., both of Lubbock.

DR. JAMES W. WARD

Dr. James Washington Ward, Greenville, Texas, a past Vice-President of the Texas Medical Association, died December 16, 1956.

Son of John R. and Margaret Lou (Walker) Ward, he was born August 8, 1879, in Bagwell, and received his preliminary education in the public schools of Bogata and Bagwell. He was graduated from the Kentucky School of Medicine, Louisville, in 1904, and did general practice several years in Detroit, Texas, before specializing in eye, ear, nose, and throat at the New Orleans Polyclinic; Tulane University, New Orleans; the Eye, Ear, Nose, and Throat Hospital, New Orleans; Manhattan Eye, Ear, and Throat Hospital, New York; and at postgraduate courses in Vienna, Austria, in 1914, and in Chicago in 1917. He was certified by the American Board of Otolaryngology in 1926. In 1915, Dr. Ward began practicing his specialty in Greenville, where he remained active until his retirement January 1, 1955.

Dr. Ward was a member of the Texas and American Medical Associations through the Hunt-Rockwall-Rains Counties Medical Society, which he served as president in 1943. In 1938, he was Vice-President of the state Association, and in 1948 he served as chairman of its Section on

DR. JAMES W. WARD

Eye, Ear, Nose, and Throat. He was elected to honorary membership in 1953. He also was a member and past president of the Texas Society of Ophthalmology and Otolaryngology and of the Greenville Lions Club, and was a member of the American Academy of Ophthalmology and Otolaryngology, Dallas County Society of Ophthalmology and Otolaryngology, Southern Medical Association, Phi Chi medical fraternity, Central Christian Church, Chamber of Commerce, Masonic Lodge, and Knights Templar. He was very active in Masonic work, and had taken special interest in the De Molays.

Dr. Ward's other activities included farming, raising cattle, and banking, and he listed pecan budding, golf, and hunting as his hobbies.

He was married in Bagwell on November 15, 1905, to Miss Rena Strickland. She survives, as do a daughter, Mrs. W. W. Jones, Houston; two sons, Dr. Irvan M. Ward, Marlin, and James R. Ward, Tyler; and three sisters, Miss Celia Ward and Mrs. H. N. Sport, both of Greenville, and Mrs. John C. Guest, Valliant, Okla.

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The "Gimme" Disease

How many times do you hear someone say, "I am a veteran and am entitled to a pension"? Or, "I have insurance and have been paying premiums for a certain number of months, and I have never used it"? This is certainly a pandemic of an old disease. Man has always wanted something for nothing. Jesus Christ was the only person who ever came into the world with everything, asked for nothing, and left with nothing. Even His tomb was borrowed.

Our present day exacerbation of the "gimme" disease was precipitated during World War I. The men who served during that war were taught that their country owed them a living, even to the extent of mass mob formation marching on the White House demanding a bonus. Then the depression aggravated the situation with the advent of the hoe-handle-leaning WPA, social security, and all other roads to the left. Later World War II happened with a rapid increase in socialistic trends. There were more than 10,000,000 men who entered military service and later became veterans. All of these either received education during the time they were in the armed services, and incidentally received pay, or they were eligible for education after they left the armed services. A great multitude of veterans have taken this means of obtaining an education. Among other enticements for demanding something for nothing was the unemployment insurance which encouraged a great many of our men not to look for work until this period of time ran out.

The Korean episode added more fuel to the fire, and now we have a general population whose members are taught that the world owes them a living; that our living

should be far superior to other peoples—and yet we are taxed beyond redemption. They are still reaching after something for nothing, and do not want to put out hard work and long hours to obtain it.

The medical profession also is faced with this type of general population as private patients with the veterans medical program, medicare, the proposed civil service medical care program, and numerous labor union medical care programs which hold out the enticing hand that the individual obtaining the service is getting something for nothing.

The end results appear to be a gradual deterioration of the attitude of the general public toward honesty, integrity, and hard work and a willingness on the part of many to perjure themselves in order to obtain the handouts. We are further experiencing a deterioration of the original American way of government and of life, which was so soundly set forth in the Constitution of the United States. Furthermore, the members of the medical profession themselves are showing definite evidence of deterioration when they are in sympathy with and actually encourage the programs listed above. The pollution of the socialistic trend has infiltrated so deeply among the general population, as well as among the medical profession, that we must give a very guarded prognosis in this type of situation.

As to a remedy, everyone can offer numerous suggestions, but all of them that seem to be sound reach back into the teaching of the Great Physician to do for others as you would have them do for you. It certainly would be wonderful to see a generalized return of personal integrity, straightforwardness, honesty, and a deeper feeling that all of us, as physicians, have a high calling and that we should attempt in every way possible to uphold that calling. That, I believe, would help us maintain freedom in the practice of medicine.

—Travis Smith, M. D., Abilene.

Big Date for Big D

Ringling Brothers and Barnum and Bailey had nothing on the Texas Medical Association annual session, scheduled for Dallas next month. It would take more than two eyes and two ears, a pair of hands and a pair of feet to take in all of the "three rings and four stages" of the medical show to be staged April 27-May 1. For show it will be, despite the serious intent underlying the many faceted program.

The scientific exhibit, which will be one of the largest assembled for this state event, has been called by the chairman of the committee, "the showcase of Texas medicine," and truly it will display many of the everyday and the more unusual problems that are being solved. Awards in the categories of individual and of institutional exhibits are adding incentive to the exhibitors to do their best. The technical exhibit, also, consisting of 100 booths showing the wares of commercial concerns that serve the medical profession, promises a wealth of informative material.

A new twist to the motion pictures will be a "request" period on Monday and Tuesday following the regular program. Sufficient demand for one of several alternate films will result in its being shown. The motion pictures scheduled daily, including some by Texas doctors, will cover a wide range of scientific facts and techniques. Sunday evening a series of films designed for wives of doctors as well as the physicians themselves will include results on automotive crash injury studies that are being reflected in new safety features in late model cars, facts—some of them not well known—about what membership in the American Medical Association means, and hints on how to be a good witness when called on to give medical testimony in court.

The variety and quantity of medical papers, panels, and oral presentations of other types should provide any physician of whatever bent with ample opportunity to add to his knowl-

edge. Because of the magnitude of this part of the program—24 out-of-state guests plus a number of other special speakers from in and out of Texas, representative member speakers from throughout the state, 4 general meetings (including the general luncheon), 24 refresher courses, 9 scientific sections, 17 related organizations and another half dozen specialty group meetings—the best advice is to refer to description of this and all parts of the program in the Organization Section of this *Journal.* Members of the Texas Medical Association may attend the scientific programs of the various specialty societies and should check them now as some of these meetings precede the main days of the annual session.

The Woman's Auxiliary has planned a complete program of activities for all ladies attending the Dallas session. A Neiman-Marcus style show should be incentive for any visitor, although the presentation of the fine educational and service work of the Auxiliary has top billing and warrants careful attention.

The Auxiliary has taken advantage of the Dallas Health Museum facilities to build a Health Fair for laymen and physicians' families alike. A total of 66 three dimensional and participating-type exhibits will be on view April 28-May 5 (Sunday through Sunday) from 11 a. m. to 6 p. m. at the Health Museum in Fair Park. Not only will doctors wish to encourage their patients and friends who are in Dallas during this period to visit the Health Fair, but they will wish to accompany their families on a tour of the exhibits for their own enlightenment and to see what is available for educating the public.

Fun? That is in the annual session program, too! Enjoyment, with tribute to the President, Dr. Milford O. Rouse of the host city, who has been recognized during the year for his fine leadership, will prevail at the President's Dinner Party at the Statler Hilton Hotel Tuesday night. After the seated dinner, an orchestra and floor show will offer entertainment and music for dancing. Tickets will be limited and should be purchased promptly upon arrival in Dallas. At the same time tickets for the General Meeting Luncheon on Wednesday may be bought. Doctors and their wives will hear Robert B. Anderson, president of Ventures, Ltd., and former Secretary of the Navy, at this luncheon, which concludes the annual session. Earlier in the schedule, alumni banquets and fraternity parties will make possible renewal of old acquaintances, and golf and skeet shooting at their best will be available for sportsmen.

Then there will be the serious business of action by Association committees and the House of Delegates and the moment for memoralizing the deceased of the past year.

Further back in the *Journal* is a page bearing two postage free postal cards, one of which will reserve hotel accommodations and the other of which will pave the way for fast, painless

A member of the Texas Medical Association headed toward Dallas and the annual session, April 27-May 1.

registration for the session. Hotel reservations should be made immediately, although Dallas offers a fine block of rooms for the convention; preregistration cards must be in the hands of the Texas Medical Association staff no later than April 20.

The 1957 annual session unquestionably will be a great occasion for learning and fellowship.

Poliomyelitis Campaign

A number of county medical societies throughout Texas have taken the lead in encouraging full use of the Salk vaccine in efforts to put an end to crippling and death-dealing poliomyelitis. They are taking cognizance of the fact that adequate supplies of the vaccine are available now to inoculate the entire population, that sufficient statistics have been accumulated to show that the vaccine reduces the morbidity rate of the disease and cuts still further its paralytic effects, yet that many persons even in the age groups most vulnerable to poliomyelitis are not being vaccinated.

The American Medical Association called a meeting of representatives from all the states January 26 to discuss the implications of the slowdown in poliomyelitis inoculations. Dr. A. L. Delaney of Liberty represented Texas. In mid-February the President of the Texas Medical Association, Dr. Milford O. Rouse of Dallas, asked county medical societies to consider, if they had not done so already, their responsibility in urging all persons, especially those less than 40 years of age, to get the protection of Salk vaccine and to decide how best this might be done.

Examples of steps the county medical societies have taken—some prior to Dr. Rouse's recommendation and some afterward—are reported in the county society section of this *Journal.* It is stimulating to note how a problem of moment throughout the vast area of the state has been attacked here, challenged there, and assailed somewhere else according to the methods best suited to the local situation, but all combining to get done the job of helping people stay well.

Civil Defense Trial Prepares for Emergency

What would a doctor do if his city were bombed by a nuclear weapon, when the lives of thousands of persons depended on the emergency care he could provide? The average doctor does not know the answer, nor does he feel that he will ever be faced with such a problem. But civil defense is an important matter, and the medical profession must be prepared to meet any disaster.

For this purpose, a field trial, Operation Rebound, will be staged in Houston March 29-30, when 500 "casualties" will be handled by civilian medical personnel from five counties surrounding Houston, which is presumed to be hit by a nuclear weapon of large yield, resulting in the destruction of all of Houston's medical facilities and personnel. A cooperative project of Medical Education for National Defense (MEND); the University of Texas Medical Branch; Baylor University College of Medicine; physicians and civil defense personnel of Harris, Galveston, Brazoria, Matagorda, and Wharton Counties; and the Texas Medical Association's Committee on National Emergency Medical Service, the field trial will test and further develop the Federal Civil Defense Administration's 200 bed mobile emergency hospital.

A report of Operation Rebound will appear in a later issue of the *Journal,* and physicians who do not have the opportunity to observe and participate in the trial are urged to give it careful consideration. Even though this trial is based on a nuclear attack, the lessons learned will be applicable to natural disasters as well. Planning for civil defense is a responsibility of all citizens, particularly those whose preparedness can be lifesaving. Apathy on the part of the medical profession could be costly.

President's Page

COME TO *YOUR* MEETING!

The annual session of the Texas Medical Association—this year in Dallas April 27 through May 1—is definitely *your* meeting. I am looking for at least 2,500 of you to attend and to bring your families.

The main purpose of the annual spring meeting will be always to provide up-to-date postgraduate information in the most attractive manner possible. Our Council on Scientific Work has arranged a superb program, as will be found elsewhere in this issue. The scientific exhibits will be the largest and best in years. Special effort has been made to get individual exhibitors to take an active interest. A medical meeting can be measured always by the quality of its technical exhibits—and only firms of highest ethical standards were invited and selected to participate. You can learn of new books, drugs, and techniques months ahead of usual channels by spending time in the exhibits; special intermissions will be provided daily for this purpose.

Many specialty societies will be meeting just before or during the annual session, and all physicians are invited to attend their scientific programs, which also are listed in this issue. Your House of Delegates will be considering the many problems that confront you daily as a physician in this complex world. You are welcome to attend the House of Delegates and really owe it to yourself to see how your business is cared for.

The fellowship phase is always magnified. You and your wife will enjoy visiting with friends of past years and making new friends. Section groups and alumni and fraternity gatherings will stimulate conviviality, and the annual dinner party of April 30 promises to be highly enjoyable.

The women of the Auxiliary have a "super" program planned, including the first Health Fair for the state. The many educational advantages of a trip to Dallas April 27-May 1 will be worth taking your youngsters out of school if necessary.

A good thing is that plenty of first-class hotel rooms are available.

Send in your hotel reservation STAT—and register yourself in advance. Everybody out for the best annual session yet!

CANCER AND YOU

The continued tragic toll of cancer among physicians spotlights the fact that neoplasms are no respecters of persons, and every doctor should consider himself a perpetual one-man cancer detection center. If he remembers that he himself may develop a malignancy, he will carry always in his diagnostic horizon the possibility that every patient he serves may have a cancer.

Doctors constitute the most effective and the safest avenues of education of the public about cancer—to the point of a sensible, thorough search for any possible neoplasm at regular intervals rather than a hysterical frenzied dread of cancer that makes life miserable. The "seven danger signs" of neoplasm should be mentioned often and appropriately to the public, as well as eternally remembered by doctors. The American Cancer Society properly is emphasizing now that the best program is to popularize complete physical examinations at regular intervals, including a pelvic examination for women and a rectal check-up for both sexes.

The best observance of your birthday would be a real going over by a medical confrere. Your example can save many lives because you will be thinking and preaching cancer detection daily.

The 1957 Cancer Crusade in Texas comes shortly. Physicians are citizens who take their share of the responsibility of financial support of Cancer, Red Cross, Community Chest, or United Fund drives.

BEST WISHES TO TMAA

A big forward step in assuring optimum efficient, courteous, and loyal service to patients by the folks who help physicians carry on their work was taken in the formation of the Texas Medical Assistants Association in Dallas in February. A full account of the launching of this group will be found elsewhere in this *Journal.*

Seventeen other states have similar organizations, and the Texas unit is one of 10 groups that are officially launching out in 1957. There are several active groups in Texas, and their value has been demonstrated already. There should be a minimum of 1,500 members of this fine state organization within the next year. Each of us will do well to encourage our medical assistants to join the county and state group of the Texas Medical Assistants Association.

Milford O. Rouse, MD

ORIGINAL ARTICLES

Some Recent Advances In Physiologic Management of Chronic Dyspneic Diseases

MAURICE S. SEGAL, M. D.; MERRILL M. GOLDSTEIN, M. D.; and ERNST O. ATTINGER, M. D.

Boston, Massachusetts

Dr. Maurice S. Segal, clinical professor of medicine, Tufts University School of Medicine, and director, Lung Station (Tufts) and Department of Inhalation Therapy, Boston City Hospital, presented this material as a guest speaker at the Texas Medical Association annual session, Galveston, in April, 1956. His co-authors are, respectively, clinical instructor and assistant professor in medicine assigned to the Lung Station and Department of Inhalation Therapy.

Relief of bronchial obstruction with adrenergic and anticholinergic aerosols (Vaponefrin and Pamine), evacuation of tracheobronchial secretions with surface tension lowering aerosols (Tergitol with potassium iodide) and pus liquefying enzyme aerosols (Pancreatic Dornase), and use of antitussive agents (Nectadon and dihydrocodeine) in the treatment of chronic dyspneic diseases are discussed.

IN CHRONIC dyspneic diseases the principal therapeutic efforts should be directed towards the following: (1) relieving bronchial obstruction (characterized by symptom cough and wheeze), (2) preventing or treating ventilatory insufficiency (characterized by breathlessness, hyperventilation, and dyspnea), (3) preventing or treating alveolar-respiratory insufficiency (characterized, clinically, by hypoxia) and the complications which may follow in its wake, namely, chronic cor pulmonale and respiratory acidosis, and (4) of utmost importance, caring for the patient's emotional needs.

It must be appreciated that patients with progressive bronchitis, bronchial asthma, and pulmonary emphysema may become fully incapacitated despite very little radiologic or histologic evidence of disability. A large part of their energy and their oxygen uptake is spent on the breathing process alone. Unfortunately, most of the pulmonary function tests commonly employed to determine the degree of disability do not take into consideration the work of breathing for a given ventilatory volume. This can be determined only by measuring the pulmonary compliance and mechanical resistance which requires the simultaneous measurement of intrapleural or intra-esophageal pressure and air flow rates.[1, 2, 3, 4]

A correlation of these dynamic physiologic changes with the clinical improvement observed in our patients has proved stimulating in studying the effects of many of the agents and procedures employed in the care of these patients. Certain of these observations will be discussed presently with particular reference to the following advances in therapy: (1) relief of bronchial obstruction with adrenergic and anticholinergic aerosols, (2) evacuation of tracheobronchial secretions, and (3) antitussive agents, while (4) pressure breathing therapy will be considered in a separate presentation.*

RELIEF OF BRONCHIAL OBSTRUCTION

ADRENERGIC AEROSOLS

Aerosols of sympathomimetic drugs, such as racemic epinephrine hydrochloride (Vaponefrin), isopropylarterenol hydrochloride (Isuprel), and racemic epinephrine hydrochloride plus atropine sulfate (Dylephrin) have proved to be of great value for the relaxation of bronchospasm. Fortunately, refractoriness to any of these preparations apparently is not immediately passed on to the others. The individual toxicities and degrees of pressor response should be noted by the physician and patient in selecting the preferred drug.[10] Clinically, one patient's asthma fre-

*EDITOR'S NOTE: *The article on pressure breathing therapy will appear in the next issue of this* Journal.

quently responds better to one of these drugs than the other. The reverse order of efficiency may be true in the same patient at another time. As little as approximately 0.05 to 0.10 cc., nebulized by three to six compressions with the hand bulb Vaponefrin nebulizer, may abort or relieve a mild bronchospastic episode. More severe bronchospasm may require 0.5 to 1.0 cc. nebulized by slow, continuous flows of oxygen or by an air pump unit.[10]

We have found very useful the simple, portable Eliot Air Pump Unit* with Vaponefrin nebulizer and face mask combination. This unit is particularly adaptable for home use for the production of continuous aerosols of all types.[11] The following aerosol mixture may be found of value: 0.5 cc. of 2.25 per cent racemic epinephrine hydrochloride (Vaponefrin), 0.5 cc. of 1 per cent phenylephrine hydrochloride (Neosynephrine), and 0.5 cc. of an aqueous solution of oxyethylated tertiary octylphenolformaldehyde polymer (Alevaire). This treatment generally requires 10 to 15 minutes, employing 4 L. per minute flow rates. A Y tube opening into the oxygen or air feed line from the air pump unit allows interruption of aerosol production during expiration.

We recently completed a study of the physiologic effects of six inhalations of Vaponefrin in 10 patients with chronic bronchial asthma and chronic pulmonary emphysema. In 4 patients, arterial pressure was measured with an indwelling needle in the brachial artery. There was a small rise (10 mm. of mercury) in 1, a small drop (5 to 10 mm. of mercury) in 2 and no change in the other. Venous pressure was measured in 7 patients; 1 showed a drop and 6 showed a rise (1 to 3 cm. of water). In 1 patient, right ventricular pressure was measured following cardiac catheterization. The pressure rose slightly after Vaponefrin (10 mm. of mercury).

A considerable reduction in the actual work of breathing was recorded physiologically in 9 of these patients. This was noted particularly during the simultaneous recordings of lung pressures, tidal volumes, air flow rates (pneumotachogram), and circulatory pressures (arterial or venous). Figure 1 shows the improvement in ventilatory dynamics in a typical study in a patient with chronic bronchial asthma after six inhalations of Vaponefrin. The air flow rates during both inspiration and expiration are markedly increased. It will be noted that the transpulmonary pressures necessary to produce these increased flow rates are but slightly increased. Thus less pressure is required for more efficient movement of air in and out of the lungs. In other words, better alveolar ventilation and gas exchange was obtained with less transpulmonary pressure. Therefore, the work of respiration was decreased. There were no changes in the venous or arterial blood pressure during this form of therapy.

Figure 2, demonstrating mechanical resistance, was computed from a recording similar to figure 1, taken in a second patient with chronic bronchial asthma and secondary pulmonary emphysema during a relatively symptom free state. The steeper the slope of the resistance line (closer to the Y axis in inspiration and expiration), the less transpulmonary pressure is required for a given air flow rate—a curve seen in subjects free of bronchospasm. The closer the slope to the X axis, the greater pressure is required for a given air flow rate—a curve seen in subjects with bronchospasm. Bronchospasm induced by mecholyl given intravenously markedly increases both the inspiratory and expiratory resistance compared to the control state. It will be noted that the bronchospasm with its consecutive increase in mechanical resistance is completely relieved by six inhalations of Vaponefrin. These physiologic changes noted in figures 1 and 2 may well explain why this aerosol technique has replaced to a large measure the use of epinephrine with the hypodermic syringe.

**Manufactured by the Eliot Medical Plastic Co., Inc., Lynn, Mass.*

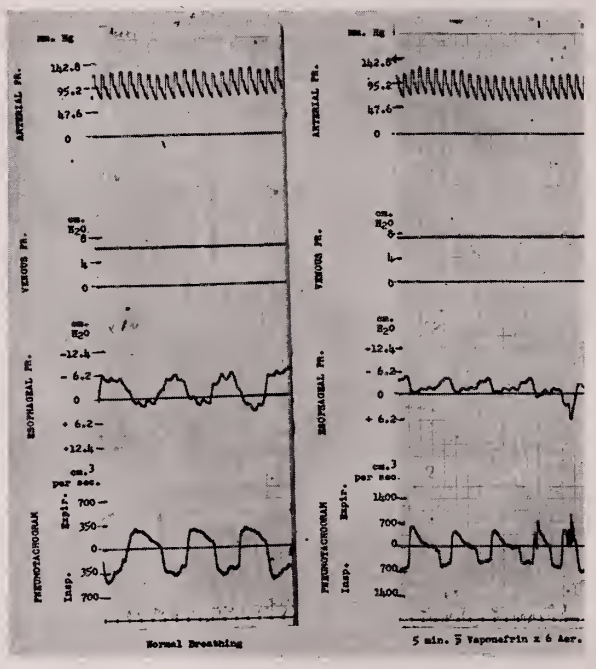

Fig. 1. Study at an asthma free interval of a 40 year old woman with chronic bronchial asthma. Tracings show increased ventilation (pneumotachogram) after Vaponefrin. [In part after Segal, M. S., and Attinger, E. O.: Chronic Pulmonary Emphysema—Symptomatic Therapy, M. Record & Annals 50:42-49 (March) 1956.]

ANTICHOLINERGIC AEROSOLS

It was suggested that the combination of a good antihistaminic and a good anticholinergic drug with bronchodilator properties would be an ideal thera-

peutic agent in bronchial asthma.[10] Parasympatholytic agents, particularly atropine, scopolamine, and bellafoline, have demonstrated excellent anticholinergic protection in our laboratory.[6] However, the mild sedative effects of these alkaloids on the mucous membrane of the tracheobronchial tree may lead to further inspissation of the already semisolid plugs, making coughing and their expulsion more difficult.

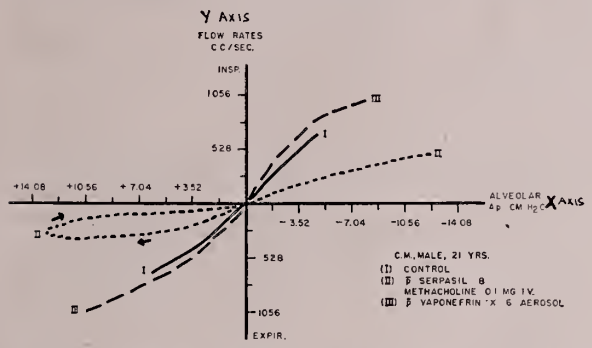

Fig. 2. Changes of mechanical resistance in a patient with chronic bronchial asthma (I) at rest, (II) during induced bronchoconstriction, and (III) after bronchodilator aerosol (supine position). Effects of the bronchodilator by aerosol (Vaponefrin) are an increase in flow rates, decrease in intrapleural pressures, rise in compliance, decrease in inspiratory and expiratory resistance, and hyperventilation. [After Segal, M. S., and Attinger, E. O.: Chronic Pulmonary Emphysema — Symptomatic Therapy, M. Record & Annals 50:42-49 (March) 1956.]

We have employed aerosols of Pamine* (epoxytropine tropate methylbromide), an anticholinergic agent, in patients with chronic pulmonary emphysema without evidence of frank bouts of bronchospasm.[9] Doses of 0.33 to 0.50 mg. dissolved in 1.0 cc. of saline or distilled water were employed with the direct Eliot Air Pump–Vaponefrin nebulizer–face mask unit or with a unit to permit intermittent positive pressure during inspiration. The average improvement in time–vital capacity relationships with the full 1 cc. dose, though lower, compared favorably with that noted after six inhalations of several adrenergic bronchodilator aerosols studied. No significant side reactions were observed with the Pamine aerosols.

Anticholinergic aerosols such as Pamine may prove of value in the depleted sick asthmatic who is hyposensitive and sweating profusely and may be considered to exhibit a systemic picture of parasympathetic stimulation. It also may be usefully employed in the patient who has become epinephrine refractory.

In figure 3 are recorded the ventilatory dynamics observed in a patient with chronic pulmonary emphysema before and after the effects of 1 cc. of continuous Pamine aerosols. A slight reduction in the intra-esophageal pressure with simultaneous improvement in the instantaneous air flow rate (pneumotachogram) during expiration will be noted. The pulmonary compliance as recorded during a single breath demonstrates a slight improvement from 0.07 to 0.09 L. per centimeter of water. In other words, the lung has become less stiff or more compliant to the pressure changes.

**Kindly supplied by the Upjohn Co., Kalamazoo, Mich.*

EVACUATION OF TRACHEOBRONCHIAL SECRETIONS

In recent years, the practice of employing detergents by the aerosol technique has become a common therapeutic approach in the management of patients with chronic bronchopulmonary diseases, particularly those instances in which tracheobronchial secretions are a major problem. The detergent aerosols are employed principally to liquefy tenacious and thick secretions thus making expectoration and clearing of the tracheobronchial tree easier and more effective.

Evaluation of the efficacy of detergent therapy is difficult. For the most part, the study of these agents is based upon clinical impressions of the changes in the daily amount and character of the sputum. Certain minimal changes in the viscosity of a patient's sputum undoubtedly will go undetected when dependent upon a daily examination of a 24 hour sputum collection. A large part of the determination of the effectiveness of a detergent depends upon the patient's subjective response, that is, variations in the ease of raising sputum, decrease in the degree of wheezing and dyspnea, and the severity and frequency of cough. The patient's subjective impressions are notably poor and unreliable methods of gaining an adequate appraisal of medications. To proceed a step further, patients with superimposed acute lower respiratory tract infections are usually treated with antibiotics. In these patients, it may be difficult to separate the effects of the antibiotic from the detergent aerosol.

SURFACE TENSION LOWERING AEROSOLS

Table 1 represents a summary of our results in the treatment of 15 patients with Tergitol with potassium iodide.* This aerosol, an aqueous solution of the detergent sodium 2-ethylhexyl sulfate 0.125 per cent with potassium iodide of 0.1 per cent, was found most useful in a recent study by Levine.[7]

All the patients treated had clinical, laboratory, and roentgen-ray evidence of chronic bronchopulmonary disease. The diagnoses included chronic bronchitis, chronic pulmonary emphysema, chronic bronchial asthma, and bronchiectasis. The majority of the

**Kindly supplied by Abbott Laboratories, Chicago.*

TABLE 1.—*Summary of the Results of Treatment with Aerosol Tergitol with Potassium Iodide in Patients with Chronic Bronchopulmonary Diseases.*

Pt.	Sex	Age (yr.)	Diagnosis	Dose of Tergitol with KI	Sputum (Pretreatment) Amount	Sputum (Pretreatment) Character	Sputum (During Therapy) Amount	Sputum (During Therapy) Character
1	F	52	Bronchopneumonia RLL; chronic bronchitis; ? bronchiectasis	5 cc. q.i.d. 7 days	8-12 cc.	Thick, mucopurulent	Gradual decrease to 0 on 4th day	Thin and mucoid on third day of therapy
2	F	21	Chronic bronchitis; ? bronchiectasis, LLL	5 cc. b.i.d. 7 days	30-60 cc.	Tenacious, mucopurulent	10-20 cc. on 1st & 4th days; 0 on 2nd, 3rd, 5th, 6th, & 7th days	When productive, moderately thick and mucopurulent
3	M	49	Chronic bronchial asthma; chronic pulmonary emphysema; chronic bronchitis	5 cc. q.i.d. 2 treatments	120 cc.	Moderately thick, mucopurulent	Treatment discontinued (see side effects)	
4	M	62	Chronic pulmonary emphysema; chronic bronchitis; ? bronchiectasis; bronchopneumonia	5 cc. q.i.d. 8 days	260 cc.	Moderately thick, mucopurulent	Increase to 360 cc. on 4th day; decrease to 120 cc. on 6th day & to 30 cc. on 8th day	Gradual decrease in viscosity; mucopurulent; thin and mucoid on 8th day of therapy
5	M	57	Post-pneumonectomy, right lung; emphysema, left lung; chronic bronchitis	5 cc. b.i.d. 1 treatment	150 cc.	Tenacious, mucopurulent	Treatment discontinued (see side effects)	
6	M	53	Chronic bronchial asthma; chronic bronchitis; ? bronchiectasis	5 cc. q.i.d. 7 days	80 cc.	Thick, green mucopurulent	No change	No change
7	M	33	Chronic bronchial asthma; chronic pulmonary emphysema; ? bronchiectasis	5 cc. b.i.d. 7 days	60-90 cc.	Thick, mucopurulent	Variable ranging from 30-180 cc.	Decrease in viscosity, thin mucoid to mucopurulent
8	M	64	Chronic bronchitis; chronic pulmonary emphysema	5 cc. b.i.d. 7 days	150-180 cc.	Thick mucopurulent	Progressive decrease during therapy; 60 cc. on last day	Thin mucopurulent during 1st 4 days; gelatinous on days 5 & 6; thin on last day
9	M	63	Chronic pulmonary emphysema; asthmatic bronchitis; bronchiectasis, (lingular)	5 cc. b.i.d. 6 days (intermittent)	120 cc.	Thick, mucopurulent, blood streaked	Decrease to 60 cc. on last day	Thin mucopurulent
10	F	57	Chronic bronchial asthma; pulmonary emphysema; chronic bronchitis; bronchiectasis	5 cc. q.i.d. 8 days	100 cc.	Moderately thick, mucopurulent	Initial decrease to 30 cc. on 1st & 2nd days; increase to 120-180 cc.; 100 cc. on last day	Decrease in viscosity, thin mucopurulent
11	M	64	Chronic pulmonary emphysema; chronic bronchitis; recurrent pneumonias	2 cc. q.i.d. 8 days	60 cc.	Thick, tenacious, mucopurulent	No change	Decrease in viscosity, thin mucopurulent
12	M	49	Chronic pulmonary emphysema; bullous emphysema, RUL	5 cc. b.i.d. 7 days	90 cc.	Thick mucoid	Gradual decrease during therapy to 20 cc. on last day	Decrease in viscosity, thin mucoid to mucopurulent
13	F	32	Chronic bronchial asthma; chronic pulmonary emphysema; chronic bronchitis	2 cc. q.i.d. 7 days	120-150 cc.	Thick, mucoid, mucopurulent	Progressive decrease during therapy; 20 cc. on last day	Decrease in viscosity, thin mucopurulent
14	F	76	Obliterative pleuritis; pneumococcal pneumonia	5 cc. q.i.d. 7 days	30 cc.	Thick, green, mucopurulent	No change	No change
15	F	46	Chronic bronchial asthma; chronic bronchitis; emphysema; RHD with MS and AF	5 cc. q.i.d.	30 cc.	Thick, mucopurulent	Patient died; prior to death, sputum was thin and mucoid	

TABLE 1. (continued).—*Summary of the Results of Treatment with Aerosol Tergitol with Potassium Iodide in Patients with Chronic Bronchopulmonary Diseases.*

Pt.	Changes in Pulmonary Function Studies: Max. Breathing Capacity	Vital Capacity	Changes in Clinical Status During Therapy: Symptoms	Physical Findings	X-Ray	Side Effects
1	.....	No change	Decreased cough & expectoration	Decrease in bilateral posterior basal rales	No change	None
2	11 L/min. decrease between start & end of therapy	Maximum increase during therapy: 500 cc.; decrease to pretherapy level on last day	Decreased nocturnal wheeze; "congestion"; cough & expectoration	Physical findings absent	No change	None
3	.....	.....	"Tightening of chest & choking up" following Aerosol Tergitol	.....	.....	Immediate increase in bronchospastic symptoms & signs
4	.....	2,300 cc. increase on 8th day of therapy	Decreased cough, expectoration, and dyspnea	Decrease in wheezes & disappearance of LLL rales	Clearing of patchy areas of density in LLL	None
5	.....	.....	4 hr. following 2nd treatment, patient noted pain in anterior chest & decrease in cough & expectoration	.....	.....	?? Side effects of Tergitol
6	.....	No significant change	No change	No change	No change	None
7	9 L/min. increase between start & end of therapy	660 cc. increase between start & end of therapy	Decreased viscosity of sputum, wheeze, & dyspnea; amount of sputum variable	Decrease in degree of wheezing	No change	None
8	5 L/min. decrease between start & end of therapy	No change	Decreased cough, expectoration, viscosity of sputum; greater ease in raising sputum	No change, persistent rales at both bases posteriorly	No change	None
9	No change	600 cc. decrease between start & end of therapy	Decreased viscosity of sputum with greater ease in expectoration; no change in dyspnea	No change, persistent rales over area of lingular	No change	None
10	.....	No change	Decreased viscosity of sputum; dyspnea & wheeze unchanged	No change, persistent rales & wheezes, latter decreasing with aminophyllin	No change	None
11	.....	.....	Decreased viscosity of sputum; no change in degree & severity of dyspnea	No change, persistent rales over LLL area posteriorly	No change	None
12	8 L/min. decrease between start & end of therapy	No change	Increased paroxysms of cough during 1st 3 days; started on penicillin with subsequent decrease in symptoms	No change	Clearing of RUL pneumonia	None
13	No significant change	No significant change	Decrease cough, expectoration, wheeze, & dyspnea	Decrease in wheeze from 3+ at start of therapy to 0 at end	No change	None
14	.....	No significant change	No change	No change, persistent rales over both lower lobes posteriorly	.....	None
15	.....	.....	.....	.....	.....	.....

patients had been treated previously with the various bronchodilator-expectorant regimens of therapy including aminophyllin, aerosol bronchodilators such as Vaponefrin or isopropylarterenol, and saturated solution of potassium iodide. One patient (patient 13) has been on a maintenance dose of prednisolone (Hydeltra) for approximately one year. Most of the patients had been under observation for several months to years prior to starting Tergitol therapy. Their response to routine therapy had been well established. With the institution of Tergitol aerosol, expectorant treatment was discontinued. However, the patients were allowed to continue with the other forms of therapy, namely, aminophyllin, bronchodilator aerosols, and steroids. Two patients received specific antibiotic therapy for superimposed pneumococcal pneumonias. The parts played by the two agents, that is, penicillin and Tergitol aerosols, were difficult to separate in these 2 patients.

Three specific regimens of Tergitol therapy were used. With patients who were hospitalized, Tergitol with potassium iodide was given in the dose of 5 cc. by aerosol four times a day. In patients who were ambulatory and able to return to the clinic at regular intervals, 5 cc. of Tergitol with potassium iodide were given twice a day. Two ambulatory patients were unable to return to the clinic at regular intervals because of transportation difficulties. These 2 patients were treated with Tergitol, 2 cc. by aerosol four times a day at home using an ordinary nebulizer and hand bulb.

Patients who were hospitalized and those who were ambulatory were seen daily. At these times, the 24 hour sputum collections were examined for quantity and character. This was recorded on a previously prepared questionnaire. The patients' signs and symptoms also were recorded with particular reference to any notable change. Roentgenograms were taken prior to, during, and at the end of therapy, whenever possible. At the end of the course of treatment, the films were examined particularly for changes that might be attributed to the detergent therapy. In addition, complete blood counts and urinalyses were performed before, during, and after completion of therapy in almost every case. Whenever possible, pulmonary function studies, including vital capacities,

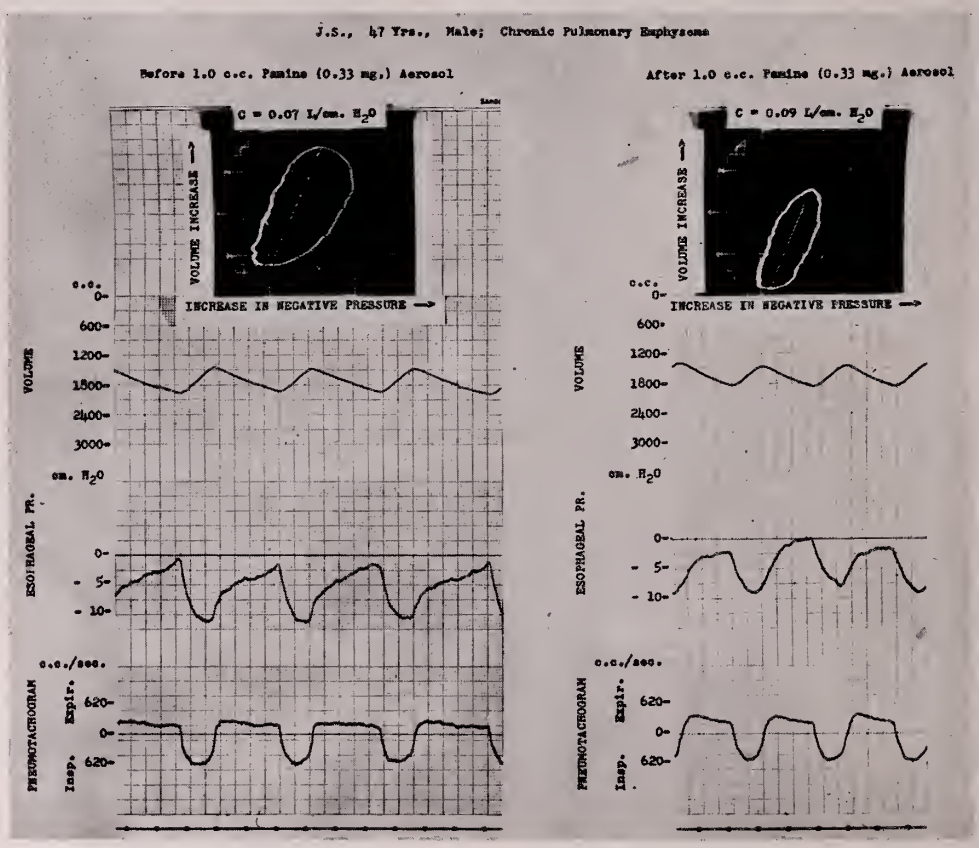

Fig. 3. Ventilatory dynamics in a patient with chronic pulmonary emphysema before and after 1.0 cc. of Pomine (0.33 mg.) aerosol during quiet breathing in supine position. The loop at the top of the tracing represents pressure-volume relationships of one breath. The diagonal line across the loop expresses the compliance (volume change in liters per centimeter of water pressure). Normal values for compliance in supine position are about 0.15 L. per centimeter of water. The breath shown in the loop starts at the bottom of the diagonal line. Inspiration goes to the right and upward. The expiration starts from the top of the diagonal line and goes to the left and downward.

and/or maximum breathing capacities were done serially. Particular reference was made to the pretreatment and post-treatment function studies.

In 2 patients, side effects considered to be due to the detergent therapy were encountered. In the case of patient 3, the drug had to be discontinued after the second aerosol treatment because of a marked increase in bronchospastic symptoms. In the second patient (patient 5), the symptoms noted were only questionably related to the detergent therapy. Nevertheless, the treatment was discontinued.

One patient (patient 15) died on the third day of therapy. This patient had had a commissurotomy for mitral stenosis several years previously. In addition, she had had severe bronchial asthma since childhood. At postmortem, the patient was found to have an extensive bilateral bronchopneumonia and moderate emphysema. Prior to the start of therapy, the patient's sputum was thick and mucopurulent. At autopsy, the secretions contained within the tracheobronchial tree were thin and watery.

Discounting the 2 patients who were dropped from the study because of side effects and the single patient who died, 12 patients demonstrated the following changes in the character of their sputum: In 9 patients, a decrease in the viscosity with greater ease in expectoration was noted; in the remaining 3 patients, no change in the viscosity of the sputum was observed.

Six patients of the 12 who completed the study showed a progressive decrease in the quantity of their sputum. Three patients (patients 6, 11, and 14) failed to demonstrate any change in the amount of the daily sputum. Patient 7's daily sputum varied greatly from day to day. Patient 4 showed an initial increase in the amount of sputum followed by a progressive decrease. Patient 10 had an initial decrease in the quantity of sputum followed by an increase and finally leveling off at pretreatment amounts.

No significant changes were noted in the patient's hemograms, urines, and pulmonary function studies. Radiologic clearing of disease was noted in the 2 patients treated for bronchopneumonia. Otherwise, no significant roentgen-ray evidence of improvement was observed.

In summary, the most noteworthy changes observed in the 12 patients completing the Tergitol with potassium iodide study were (1) the quantity of the daily sputum (a decrease in half) and (2) the viscosity of the sputum (a decrease with thinning and greater ease in expectoration in three-fourths).

The 2 patients treated for bronchopneumonia are difficult to evaluate accurately since the responses observed may well have been due mostly to the concomitant antibiotic therapy.

PUS LIQUEFYING ENZYME AEROSOLS

An increasing number of enzymes of various origin are being used for enzymatic debridement of fibrinopurulent and mucous secretions in the tracheobronchial tree in pulmonary disease and in other suppurative disease. The significance of metaplastic cellular changes observed in laboratory animals with the use of various enzyme aerosols cannot be transferred readily into terms of potential neoplasia in humans. Cellular metaplasia has been noted by many observers in the sputum and biopsy specimens of patients with chronic bronchitis and various pulmonary disorders in the natural course of the disease.

In the presence of bronchial infection, bronchiectasis or viscid, tenacious, mucopurulent secretions, the use of the pus liquefying enzyme, Pancreatic Dornase,* as a therapeutic adjuvant has proven helpful.[8] The harmful potentialities of these secretions by obstructing airways and acting as a culture medium for infectious micro-organisms is recognizable. The rapid and safe evacuation of these secretions in the simplest possible manner is a problem of great importance. The use of Pancreatic Dornase aerosols prior to and after lung operations in asthmatic patients may make it safe for the thoracic surgeon and furthermore may increase the patient's chances for a more prompt recovery, freer of complications which may be crippling or even fatal.

Pancreatic desoxyribonuclease (Pancreatic Dornase) is prepared from beef pancreas. Desoxyribonucleoprotein is an important constituent of purulent exudate, and it determines the character, viscosity, and amount of sediment of such exudates. Desoxyribonuclease, whether of streptococcal origin (streptodornase) or of pancreatic origin (Pancreatic Dornase) is a pus liquefying enzyme and is capable of degrading desoxyribonucleoprotein. The action of Pancreatic Dornase is primarily one of depolymerization, and but little degradation of desoxyribonucleoprotein occurs. The absence of appreciable amounts of noxious degradation products, which might be absorbed systemically, permits its relatively safe use. We have not observed any side effects in a series of more than 100 treated patients. Nevertheless, because of the protein nature of Pancreatic Dornase, allergic reactions should be watched for in allergic or previously sensitized subjects. Usually one may observe decreased viscosity of sputum, greater ease of expectoration, and a more productive cough; then gradual diminution; and finally, following the evacuation of secretions, less bronchoconstriction.

We have employed dosages of 50,000 to 100,000 units per treatment, one to three treatments daily for one to six days as a full course of therapy. Clinical improvement and decrease in cough and volume of sputum may be used as a therapeutic guide for dosage

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and continuation of therapy. The Dornase is mixed with 1 or 2 cc. of saline solution shortly before its administration. One-half to 1 cc. of a potent bronchodilator aerosol should be added to the mixture when bronchoconstriction is evident. The Pancreatic Dornase solution is aerosolized with the direct Vaponefrin nebulizer–oxygen flow technique or with the nebulizer–Eliot air pump unit or with the intermittent positive pressure–nebulizer–Bennett valve unit. The air or oxygen flow rates should be kept at 4 or 5 L. per minute flow to avoid foaming in the nebulizer.

ANTITUSSIVE AGENTS

Coughing should not be regarded as innocuous, albeit annoying. Secondary distressing symptoms that may follow in the wake of cough are physical and mental exhaustion, headaches, insomnia, pain or soreness in the lower part of the chest or in the abdomen, hernias, loss of urinary bladder sphincter control in women, fractured ribs, subluxation of a chondrocostal articulation, and rupture of muscle fibers. The coughing "habit" unfortunately seems to persist in some patients after the cause has been removed. Fatigue, weakness, anorexia, indigestion, flatulence, constipation, and weight loss are common, and the patient may acquire the typical "chronic appearance." Syncope may follow a severe or continuous coughing paroxysm.

In the patient with a troublesome, hacking, paroxysmal, or persistive cough which threatens his physical and mental state, the objective, after careful diagnosis and specific therapeutic regimens have been instituted, is to allay the intensity of the symptom cough. The ideal drug should be nontoxic, be devoid of respiratory and circulatory depressing properties, and possess nonanalgesic, non-narcotic, nonaddicting properties when repeatedly administered. Addition of histaminolytic and/or cholinolytic properties are of particular value in the management of the cough associated with allergic bronchitis.

NECTADON*

We recently completed a study in 51 patients with cough due to various types of pulmonary disease who were placed on a program of Nectadon* therapy in an attempt to evaluate its effectiveness as an antitussive agent.[12] Nectadon is the second most abundant alkaloid in opium, next to morphine. Actually, Nectadon bears little resemblance to the narcotic alkaloids, either chemically or pharmacologically. The structure of morphine, codeine, and similar compounds is based on a phenanthrene nucleus, whereas Nectadon is an isoquinoline derivative (related to papaverine). It is readily absorbed after oral or parenteral administration, disappears rapidly from the blood stream, and shows only traces in the urine. Its fate is unknown. It has been referred to as the least toxic of the opium alkaloids in mice, rats, and man. No depressant action on respiration or the central nervous system has been observed up to toxic doses; stimulation may appear with higher doses.

In our clinical studies, Nectadon administered orally in doses of 15 to 60 mg. at graded intervals proved effective as an antitussive agent in 51 of 54 trials in 51 patients who were treated for cough due to various types of bronchopulmonary disease. Its maximum effectiveness (3 to 4 plus cough suppression), however, was noted in slightly less than half of the overall group. In 23 out of 30 trials, comparable or better effects were observed with Nectadon when compared with other antitussive agents such as Hycodan, codeine, and Dilaudid.

There were no side effects noted in 45 patients treated with Nectadon. Moderate drowsiness was observed in 3 patients; difficulty in raising secretions in 2; headache in 1. A gradual loss of effectiveness was observed in 3 cases. No gastrointestinal complaints or respiratory depression was noted in any of the patients receiving Noscapine.

DIHYDROCODEINE

There appeared recently a report by Gravenstein and others on the analysis of the pain relieving and side effects of dihydrocodeine (a hydrogenated derivative of codeine). They concluded that dihydrocodeine (30 mg. per 70 kilograms of body weight) is an effective and powerful analgesic agent, somewhat less potent than morphine (10 mg.) but devoid of the classic side effects of morphine.[5]

Anticipating the possible usefulness of dihydrocodeine* as an antitussive agent, we undertook a study first to determine the degree, if any, of respiratory depression produced by the drug. This side effect, which is inherent in most of the agents in the opiate group, is the most serious contraindication to their use in chronic bronchopulmonary diseases.

The 3 patients studied had chronic bronchitis and chronic pulmonary emphysema. In this group of patients, respiratory depression from any cause would lead to serious complications in the form of alveolar hypoventilation, retention of carbon dioxide, and finally, respiratory acidosis and death.

The studies undertaken consisted of measurements of the minute ventilation, tidal volume, respiratory rate, and expired carbon dioxide. With respiratory depression, as might occur following the administra-

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**Kindly supplied by Merck Sharp & Dohme, Rahway, N. J.*

tion of the opiate group of drugs, a decrease in ventilation would be noted with an accompanying rise in expired carbon dioxide.

The following apparatus and procedures were used in these studies: (1) Expired gas was collected in a Douglas bag for continuous three minute periods by means of a J valve, and the volume of gas was measured with a gas meter and corrected for temperature. (2) Expired carbon dioxide was obtained by inserting a needle into the mouthpiece and connecting this to a Liston-Becker Model 16 gas analyzer. (3) The values for expired carbon dioxide were read directly from the gas analyzer in terms of micro-amperes. Percentage values for expired carbon dioxide were obtained from a graph. This graph was formed by plotting known values for percentage of carbon dioxide against their observed micro-ampere deflections. (4) A control study using expired volume collections during a period of three minutes was carried out initially. (5) The patient was then given 1 cc. of dihydrocodeine intravenously (30 mg. per cubic centimeter). Repeat three minute collections of expired gas were done at varying intervals following this injection.

The results of these studies are summarized in table 2. As noted, there was no significant decrease in ventilation or rise in expired carbon dioxide which might be indicative of respiratory depression secondary to the intravenous administration of dihydrocodeine.

From these studies, it can be concluded that no significant respiratory depression occurred secondary to the intravenous administration of 30 mg. of dihydrocodeine in 3 patients with chronic pulmonary disease. Further studies to evaluate the clinical usefulness of this interesting drug as an antitussive agent are in progress.

SUMMARY

Employing several newer therapeutic agents and procedures, a correlation of the physiologic changes observed in the laboratory with the clinical improvement observed in patients with chronic dyspneic diseases was made.

The changes following the administration of an effective adrenergic and anticholinergic bronchodilator were recorded in patients with bronchospastic disease. A striking reduction in mechanical resistance, increase in pulmonary compliance (lung less stiff), and reduction in the actual work of breathing was demonstrated following six inhalations of an effective, adrenergic bronchodilator aerosol preparation (Vaponefrin). Similar, though less significant, changes were recorded with the use of continuous aerosolization of an effective anticholinergic preparation (Pamine).

The successful evacuation of tracheobronchial secretions was observed following the use of continuous aerosols of two new therapeutic preparations: surface tension lowering aerosols of Tergitol with potassium iodide and pus liquefying enzyme aerosols of Pancreatic Dornase.

Two new antitussive agents were studied. Nectadon, an opium alkaloid derivative, was found nontoxic and free of respiratory depressing properties. It was capable of suppressing cough when administered orally in 51 patients. In more than three-fourths

TABLE 2.—*Effect on Respiration of Dihydrocodeine.*

Pt.	Time of Study	Resp. Rate (Breaths/min.)	Minute Vent. (L./min.)	Tidal Vol. (cc.)	Expired CO_2 (End Tidal) (%)
16	Control 1	29	13.26	475	4.0
	Control 2	28	13.14	469	3.9
		Dihydrocodeine: 30 mg. IV			
	5 min. post injection	26	14.23	548	3.9
	15 min. post injection	29	14.92	514	3.9
	30 min. post injection	27	13.82	514	3.9
	60 min. post injection	26	13.40	516	3.9
17	Control 1	16	13.70	857	4.6
	Control 2	16	12.70	793	4.1
		Dihydrocodeine: 30 mg. IV			
	5 min. post injection	16	12.60	790	4.1
	15 min. post injection	Unsatisfactory due to technical error			
	30 min. post injection	15	11.30	754	4.9
	60 min. post injection	16	11.97	748	4.1
18	Control	17	12.18	717	4.5
		Dihydrocodeine: 30 mg. IV			
	8 min. post injection	12	11.06	922	4.5
	15 min. post injection	13	11.46	882	4.5
	30 min. post injection	17	12.29	723	4.0
	38 min. post injection	16	11.34	709	4.0

of the patient trials, comparable or better effects were observed with Nectadon when compared with other antitussive agents. Dihydrocodeine, a successful analgesic agent, was administered intravenously in 30 mg. doses to 3 patients with chronic bronchitis and chronic pulmonary emphysema. Measurements of minute ventilation, tidal volumes, respiratory rate, and expired carbon dioxide did not reveal any evidence of respiratory depression following its use. Further studies to evaluate the potential usefulness of this interesting drug as an antitussive agent are in progress.

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Tinea Nigra

The authors report 3 cases of tinea nigra in Texas. This peculiar fungous infection has been thought to be quite rare but actually may be more common than previously thought. The 3 cases were in children under the age of 16 years, and each manifested the disease as a brownish-black, macular lesion on the palm. Potassium hydroxide slide mounts easily revealed the presence of numerous mycelia and cultures grew typical colonies of Cladosporium wernecki. All the cases responded satisfactorily to the local application of an alcoholic fungicide, Verdefam.—Spiller, W. F.; Mullins, F.; and Know, J. M.; J. Invest. Dermat. 27:187-192 (Sept.) 1956.

Cholecystitis

Panel Discussion

DOLPH L. CURB, M. D.;
HARRY L. BARTON, M. D.;
J. GRIFFIN HEARD, M. D.; and
BELA HALPERT, M. D., Moderator

Houston, Texas

DR. BÉLA HALPERT: Cholecystitis occurs more frequently in women than in men; yet, a survey of our material disclosed that of 13,000 operations on veteran patients, 171 were for cholecystitis.

Dr. Bela Halpert, chief of the Laboratory Service and professor of pathology, Baylor University College of Medicine, served as moderator for this panel discussion, which was presented at the quarterly staff meeting of the Veterans Administration Hospital, Houston, on September 22, 1955.

The treatment of cholecystitis usually is surgical, with medical management helpful as an adjunct and occasionally as the only approach. The internist's diagnosis can be established by roentgenologic methods and elaborated upon by the pathologist. Chronic cholecystitis is intimately associated with cholelithiasis, which also is present in most cases of carcinoma of the gallbladder.

Among 1,600 necropsies there were 102 instances of cholecystitis with cholelithiasis. This panel is to discuss cholecystitis, and Dr. Curb will speak about the medical aspects.

MEDICAL ASPECTS

DR. DOLPH L. CURB: This is a rather formidable assignment to discuss the medical aspects of cholecystitis without narrowing it down to any particular type or aspect of the disease. I will hit the high points, attempting to emphasize those that constitute real problems. I think any detailed description of the classic picture of acute cholecystitis is unnecessary since it is all too familiar to this group, that is, the onset of severe right upper quadrant pain with radiation to the scapular region, at first indistinguishable from simple biliary colic, but soon becoming of

greater proportion as the pain persists. This is accompanied by fever and other manifestations of inflammation, namely, the physical finding of tenderness over the gallbladder, laboratory confirmation of an inflammatory process in the form of an increase in the leukocyte count, and possibly a slight elevation of the serum bilirubin.

The forms of acute cholecystitis that are real problems are those in which the character or location of the pain is atypical. The pain may be at a distant location from the gallbladder, in the midline, beneath the xiphoid, or in the right lower quadrant, or it may be poorly localized abdominal pain. It is sometimes of an intermittent or colicky character, suggestive of an intestinal obstruction, especially if there is abdominal distention, with vomiting and constipation. Occasionally an acutely inflamed gallbladder may perforate early and give rise to a generalized peritonitis, obscuring the primary process. An earlier process in the gallbladder may be obscured also by other complications dominating the picture as when a subphrenic abscess develops. Laboratory data may not contribute except to demonstrate that we are dealing with an inflammatory process indicated by an elevated leukocyte count. Probably if one were to ask for the most reliable clinical criterion of acute cholecystitis when there is an obscure abdominal condition, I would emphasize localized or maximal tenderness in the location of the gallbladder, especially deep percussion tenderness.

The treatment of acute cholecystitis I readily concede to be surgical, ultimately, in every case in which there is no contraindication or hindrance. I say ultimately because in many instances operation may not be indicated at once with the diagnosis. It is indicated ultimately because the occurrence of a well defined attack of acute cholecystitis is apt to be followed by recurrence and complications.

In which instances is operation indicated earlier in the course of acute cholecystitis? I am sure that will be dealt with in more detail by the surgeon. My criteria would be first, that the diagnosis be without doubt, usually in a patient who has been known to have gallbladder disease, especially gallstones affirmed by roentgen-ray evidence, and in whom the symptoms are atypical; and second, that the patient be seen early in the course of the attack, preferably the first 12 to 24 hours but possibly a little later. With the passage of more time, or if we do not have confirmation of the diagnosis, the desirability of avoiding operation until the acute process subsides becomes increasingly greater. The majority of cases we do see late.

What are the criteria for abandoning conservative treatment? When the sum total of evidence indicates that the inflammatory process is progressing and the patient's condition is deteriorating, conservative management should be abandoned. The decision has to be based upon both the symptoms and the objective evidences such as fever, leukocytosis, and local findings in the physical examination. When we can see that there is progression, immediate surgical intervention is indicated. Meanwhile, medical treatment, I think, can be summarized by saying it is supportive. Attention is to be given to fluid and electrolyte balance and to the administrations of antibiotics in the hope of preventing spread of the infection.

Chronic cholecystitis is seen in two forms. One is recurring acute attacks of biliary colic or attacks of acute cholecystitis with relative freedom of symptoms in between. The other is that of chronic symptoms, aside from attacks of biliary colic or acute cholecystitis. I have difficulty in identifying any set of such symptoms clearly associated with chronic cholecystitis. Most of the symptoms usually connected with that process are the so-called dyspeptic symptoms—gassy distress, fullness after eating, belching, bloating, and the like. These symptoms are so common in functional disturbances in the absence of chronic cholecystitis that it is difficult, when such symptoms are in association with a nonvisualized gallbladder, to say whether or not they are merely coincidental and due to nervous indigestion, spastic colon, chronic constipation, and laxative habit which has come about through self-medication. There are certain symptoms often ascribed to biliary dyskinesia, or dysfunction of the motor mechanisms of the biliary tract, and more clearly related to the taking of food and which somewhat resemble biliary colic. Again, it may be difficult to prove the relationship of these symptoms to gallbladder disease that we have demonstrated objectively by roentgen ray. Then there are sometimes symptoms identifiable as cardiac. It appears that certain functional disturbances of the heart can be produced by stimuli arising in the biliary tract. Ectopic beats and sometimes more prolonged dysrhythmias may be precipitated by gallbladder disturbances. Sometimes, too, symptoms of chronic cholecystitis may be related to associated pancreatic disease, particularly chronic pancreatitis. Often it may be difficult to identify which of the symptoms are related to the gallbladder and which to the pancreas.

Concerning the treatment of chronic cholecystitis, I say emphatically that the ideal treatment is surgical in the group that manifests itself by recurring attacks of biliary colic and/or acute cholecystitis. The treatment is surgical because the results are good and because the results without operation by any medical regimen are poor. This does not mean that we will or should operate on all such patients, but it is the ideal treatment if there is no contraindication. In the second group, in which dyspeptic symptoms predominate and little or no biliary colic or acute cholecystitis occurs, the treatment of choice is probably also in most instances surgical, but with a different

prognosis and with a need for making clear to the patient why operation is performed. The operation is recommended in order to forestall the likelihood of serious complications of acute cholecystitis, common bile duct stone, pancreatitis, and the like. However, the patient should be warned that the results so far as relief of the dyspeptic symptoms are concerned may not be good. I think most of my surgical colleagues will agree that these patients often persist in having symptoms after removal of the gallbladder and that the symptoms will later have to be dealt with medically, usually managed as in any other patient with a spastic colon, chronic constipation, laxative habit, and so on.

The medical treatment of chronic cholecystitis, when operation is either contraindicated, undesirable because of associated conditions, or declined by the patient, is largely that of the functional symptoms—the use of a bland diet, particularly low in fat. In other words, the medical treatment is designed to demand of the gallbladder function as little as possible. Treatment of the associated functional disturbances, especially the neurogenic ones, and the constipation problem by the well known methods that we would use in the absence of gallbladder disease are in order. The use of antispasmodics, of which we have so many, is of debatable value. I usually use them in conjunction with general measures and results are hard to evaluate. I have the feeling that probably, just as in functional disturbances and in peptic ulcer, their value is limited. There is theoretical basis for using the choleretic and the cholagogue drugs which increase the flow and/or dilute the bile with the idea of preventing bile stasis. Actually, in practice I have not been impressed or convinced that they contribute a great deal to the more general management I have described already. I usually use them, especially in patients inclined to be constipated. Sometimes the apparent benefit is more from the mild laxative action than from the effect upon the biliary tract.

Dr. Halpert: Treatment depends on one's concept of the function and dysfunction of the gallbladder, and this is revealed accurately in Dr. Curb's presentation. We will hear next from Dr. Barton about the current methods of roentgenologic diagnosis.

ROENTGENOLOGIC DIAGNOSIS

Dr. Harry L. Barton: The presumptive diagnosis of gallbladder disease can be proved and established by roentgenologic methods. Frequently a roentgenogram of the right upper quadrant of the abdomen may be all that is necessary. If a radiopaque calculus is demonstrated, it may be safely assumed that the gallbladder is diseased. For more complete study the gallbladder is visualized by administering an iodine compound either intravenously or orally. This makes the content of the viscus opaque and reveals its functional state. Up to 1940 only sodium tetraiodophenolphthalein was available for visualization of the gallbladder. Reactions to the intravenous administration of this dye were severe with nausea, vomiting, colicky pain, and diarrhea. In 1943 Priodax was introduced and was readily accepted because reactions were milder, although in 10 per cent they were severe enough to cause concern. The reactions were similar, with nausea, vomiting, diarrhea, and dysuria being present. In 1950 Telepaque became available, which casts a denser shadow and causes fewer and usually milder reactions. The density at times may be sufficient to obscure radiolucent stones. About two years ago Teridax was introduced. This has the opacity of Priodax and is just as mild as or even milder in its reaction than Telepaque. The most recent is an intravenous compound, Cholografin, which is fairly safe in comparison to the previous ones. It is used only in special cases because of the time consuming procedure in testing for sensitivity to the iodine.

In this hospital Telepaque is used and is satisfactory. We have the procedure streamlined. After a nonfatty supper, 6 tablets of Telepaque are taken with water. The patient is then allowed water but no other food. He reports the next morning to the x-ray department at which time the examination is completed. We are not making a postfatty meal examination because it usually does not provide additional information. However, when it seems necessary, a fatty meal is given. There are variations of the procedure in different hospitals. Some give a fatty meal at the noon hour the day before examination to empty the gallbladder. It is possible that retained bile may prevent the secretion and storage of the opaque medium in the gallbladder with nonvisualization. However, we do not do this because it is time consuming and frequently causes an acute attack of biliary colic which may delay the examination for days.

The appearance of a normal gallbladder varies just as much as the human anatomy elsewhere. It usually contains about 50 cc. of bile and is about 8 cm. long. Its distal portion is the fundus, the middle portion is the body, and the proximal portion is the infundibulum. Frequently we are able to visualize the cystic duct. There are variations in size and also in position. In the upright position the viscus is closer to the midline and at a lower level, a level sometimes low enough to be confusing. The gallbladder appears differently with the patient in the prone position than in the upright position. There is further variation in size after a fatty meal.

There are differences of opinion as to how the gallbladder empties and how the opaque medium and

bile leave the gallbladder. Most radiologists believe from roentgen-ray evidence that it empties through the cystic duct into the common bile duct by contraction. I know Dr. Halpert has a different opinion. He believes that the reduction in size is accomplished by resorption rather than by contraction. The only time we are able to demonstrate the cystic duct is after stimulation of the gallbladder with a fatty meal. Changes after administration of a fatty meal may include visualization of the cystic duct and the common bile duct. Visualization of the gallbladder and barium meal examination may be combined on the same day. The gallbladder is examined first and then the barium is administered. This way the relationships of the stomach and gallbladder may be studied.

There is a variability in the range of mobility of the gallbladder. We may see it project over the first sacral segment or at an even lower level and more medially than normal. Frequently we see folds in the gallbladder. These vary considerably in extent and in size and are of no clinical significance except that in evaluation of the films sometimes the fold of the fundus is projected over the body and gives an appearance identical to that of a calculus. Unless the projections are proper, a reexamination is necessary to rule out the presence of a partially opaque stone in the gallbladder. The folded effect of the gallbladder is frequently referred to as a Phrygian cap. Such gallbladders function normally.

Another variation is a double gallbladder or a septate gallbladder (an incomplete division by a septum). Sometimes there are two distinct gallbladders and they act as a normal gallbladder. One of them or both may contain gallstones. These are uncommon as are double gallbladders, each having a separate cystic duct. No visualization of the gallbladder in the area that would normally be examined in a survey film occurs in the rare instance of situs inversus in which the gallbladder is on the left side.

Faint outlines of the gallbladder may indicate impaired function. Areas of radiolucency within the viscus represent radiolucent stones, a finding frequent in patients with acute and chronic attacks. To outline the gallbladder containing many small radiolucent stones, views in different positions need to be taken. These may appear as mottling in the fundus due to many small radiolucent calculi. Gallstones may be quite numerous. As many as 32,000 have been counted in a single gallbladder. Small calculi might be missed when a patient has intestinal gas or when the intestinal pattern is obscured by intestinal contents. Other views may be necessary to confirm the presence of stones within the gallbladder. Stones may collect in the fundus and give a layering effect with the bile above it. Frequently, the stones will be lighter than the opaque medium or the bile and will be seen towards the neck. Radiolucent stones with faceted surfaces may be distinguished. Another reason for taking views from various angles is to make sure that a gas bubble is not mistaken for a radiolucent stone. Sometimes it is impossible to differentiate, and reexamination is necessary to rule out or to distinguish a stone from a gas bubble. When the shadow persists in the same place, we may be fairly sure that we are dealing with a stone. Occasionally radiolucent stones may block the entrance to the gallbladder preventing passage of the opaque medium.

Gallstones may be radiopaque or radiolucent, depending on their calcium content. A radiopaque stone can be readily outlined, but if the medium is too dense, one could easily miss seeing the stone. A calculus may occlude the cystic duct and another one be in the body or fundus. Opaque faceted calculi in the gallbladder are readily demonstrable in the prone position as well as in the upright position. In a barium meal–gallbladder combination roentgenologic study, the proximity of the gallbladder to the duodenal bulb is demonstrated. This explains the frequency of signs and symptoms of duodenal disease in the presence of gallbladder disease. A large radiopaque calculus may occlude the upper portion of the gallbladder, and there may be amorphous collections of inspissated bile with calcium sometimes referred to as milk of bile. This may be demonstrated in a plain film without administration of opaque medium. A gallbladder with such content is often markedly shrunken. This type of content apparently occurs only in a completely blocked gallbladder, and that is the reason why the calcium salts have precipitated. Out-pouchings of the mucosa, the Rokitansky-Aschoff sinuses, so often seen in chronic cholecystitis occasionally may be visualized by the opaque medium, filling the sinuses and causing faint halo-like outlines surrounding the opaque gallbladder.

Dr. Halpert: We have heard about the medical aspects, about the roentgenologic aspects, and now Dr. Heard will tell us about the surgical aspects of cholecystitis.

SURGICAL ASPECTS

Dr. J. Griffin Heard: Today the treatment of cholecystitis in its various forms is mostly surgical. In acute cholecystitis one may ask whether to operate early or late. Early, by most surgeons, means within 48 to 72 hours, because the morbidity and mortality in the first 24 to 72 hours of acute cholecystitis is low. After that time one may temporize and, as Dr. Curb explained, if the patient's condition regresses, the surgeon has to step in. If the patient's condition improves, then the procedure may be made elective, which is more advantageous in that we may consider

the whole patient instead of the surgical treatment of cholecystitis.

The chronic types of cholecystitis are divided into calculous and noncalculous. The noncalculous type is now being considered in a different light. Not only should the attack be removal of the gallbladder, but at the same time investigation of the condition of the whole biliary tree should be performed. That goes particularly for the dyspeptic patients and the like that Dr. Curb described. Exploration of the common bile duct should not be limited to the distended duct. If a patient has a period of recurrent illnesses, which can be either pancreatic or biliary, and it is found at the time of operation that the common bile duct is not distended but is fibrosed and apparently smaller, and subject to or the site of inflammatory reaction, then I believe the common bile duct should be explored. This also gives us an opportunity to do something that I think is essential not only in the treatment of these patients whom we have failed in the past to cure, but for the treatment of pancreatitis —that is, choledochoampullotomy, investigating the condition of the ampulla at the time of exploration of the common bile duct. The treatment of calculous cholecystitis is so well accepted that we need not consider it.

The so-called silent stone, or the stone that is picked up at the time of examination for some other condition or that is discovered in the roentgenogram of a normally functioning gallbladder, is at times to be dealt with. I believe that the gallbladder containing such a stone or stones should be removed. The reason is that perhaps some of these would be subject to the development of carcinoma of the gallbladder. Since the mortality rate of cholecystectomy in the interim or quiescent stage is between .5 and 1 per cent, it involves a small risk. I strongly advocate that surgical removal is the appropriate treatment for cholecystitis. This puts a big responsibility on those of us who are teaching and who are doing these types of operations. One has only to see the results of injury to the common bile duct to realize that this operation is one of great importance and one that should be done very carefully. Injury to the common bile duct must be avoided. Those who have had to follow patients with such injury through their short lifetime of repeated attacks of jaundice and of gradual destruction of the liver and the human being itself realize the responsibility with which the surgeon is charged.

Dr. Halpert: We planned the panel in the sequence as the patient who has an ailment or involvement of the gallbladder is followed. The patient sees the internist, who asks the radiologist to help establish the diagnosis. Then the surgeon removes the gallbladder, which the pathologist receives.

PATHOLOGIC REVIEW

Dr. Bela Halpert: Dr. Curb mentioned that there are two kinds of cholecystitis, acute and chronic. There is a third form about which the surgeons perhaps should know more because they encounter it most frequently, namely, the gallbladder with chronic cholecystitis and superimposed acute cholecystitis. How should the surgeon know that the gallbladder with acute cholecystitis is one superimposed on a chronic cholecystitis? The presence of gallstones in the gallbladder is the evidence. Chronic cholecystitis is so intimately associated with cholelithiasis that when one thinks of chronic cholecystitis, one should think also of cholelithiasis. Familiarity with the kinds of gallstones may be of value to both the internist and the surgeon.

There are three normal constituents in the bile that may form concretions: cholesterol, calcium bilirubinate, and calcium carbonate. Each of these may be the only constituent of the stone or stones. A pure cholesterol stone is always solitary and has a crystalline surface and structure. The formation of such a pure cholesterol stone is the result of a disturbed cholesterol metabolism. Calcium bilirubinate stones may be minute or up to 1 cm. in diameter. They are multiple and jet black and usually have a prickly surface or look like jackstones. They are the result of a disturbed bile pigment metabolism whereby, because of a temporary excessive destruction of erythrocytes, bile pigment is excreted in excess into the bile. Calcium carbonate is observed occasionally as an amorphous mass in the gallbladder and so far has not been related to any of the known forms of disturbed calcium metabolism. These pure gallstones comprise about 10 per cent of the biliary calculi encountered in surgically removed gallbladders. The formation of these gallstones is due to a disturbed metabolism, and if these gallstones are present in the gallbladder, they eventually may cause chronic or acute cholecystitis.

The majority of gallstones — 80 per cent — that are contained in surgically removed gallbladders are mixed gallstones. These are multiple and usually faceted. They are composed of a mixture of the three stone-forming constituents in varying proportions. Their color is a composite of the fundamental colors of the stone-forming components. Cholesterol is yellow, calcium carbonate is white, and calcium bilirubinate is black. The colors will vary depending on the proportion of these components. There may be additional components in trace quantities which also may influence the coloring and the sheen of gallstones—metals like magnesium, for example. The mixed gallstones are the result of chronic inflammatory reaction of the gallbladder and therefore are found always in gallbladders with chronic cholecystitis.

A third variety of gallstones are the combined gall-

stones. These comprise about 10 per cent of the gallstones encountered in surgically removed gallbladders. The combined gallstones have a nucleus of one kind and a shell of another kind.

When an acutely inflamed gallbladder has a calculous content, the acute inflammation is superimposed on a chronic inflammatory process. The microscopic structure of such a gallbladder reveals thickening of the wall, hypertrophy of the muscular coat, out-pouchings of the mucosa towards the external layers, the so-called Rokitansky-Aschoff sinuses, an increase of the connective tissue in the perimuscular layer, and an infiltration throughout with lymphocytes, plasma cells, and large mononuclear cells. Superimposed on these changes are the spreading apart of the tissue elements by edema, extravasated erythrocytes, and infiltrations of all the layers by granulocytes. I am at a loss to understand why the Rokitansky-Aschoff sinuses have been seen only about a half dozen times on roentgenograms. All gallbladders with chronic cholecystitis have these Rokitansky-Aschoff sinuses in abundance.

DISCUSSION

DR. CURB: I should like to raise an issue on the concept of invariable surgical treatment of silent gallstones. Perhaps not all gallstones should be removed on sight, without a closer look at the patient. I believe the incidence of carcinoma of the gallbladder is a rarity compared with the extreme commonness of gallstones, silent and symptomatic. I cannot be moved too much by that argument. My attitude towards silent gallstones is related more to the age of the patient than anything else. The younger the patient who has a silent gallstone, the more years he has to look forward to in which he may expect to undergo the risk of having symptoms and complications. Therefore, the person of 30 or 40 or 50 years who has a gallstone without symptoms and who is a good surgical risk should have the gallbladder out to avoid future trouble with it after reaching an age when perhaps other complications would make surgery more hazardous. A patient 60, 65, and 70 years old in whom we stumble upon a symptomless gallstone, I cannot get up too much enthusiasm about subjecting that patient to cholecystectomy because of the remote possibility of carcinoma of the gallbladder and certainly not too great a possibility of serious complications when we realize this patient has probably had this stone for many years without trouble and therefore has a good chance of getting along without surgical intervention.

DR. HEARD: I have no quarrel with that. Certainly I did not mean that I would take a man 92 years old in whom we accidentally found a stone and subject him to a cholecystectomy. Our philosophies, I think, are about the same on that, Dr. Curb. Certainly, as you pointed out, the older one gets, the more are the chances that one is going to die sooner and of something. I would take my chances after I get to be 70 or 75 years of age on dying of carcinoma of the gallbladder as of a coronary. But I would like for the pathologist to give us his ideas as to the percentages of carcinoma of the gallbladder with stones and without stones.

DR. HALPERT: I mildly disagree with the point of view that silent gallstones should not be disturbed. I agree, however, that if the age is advanced and there are contraindications for intervention, cholecystectomy should not be performed. It is true that in 90 per cent or more instances of carcinoma of the gallbladder there are also gallstones, but that is not proof that cholelithiasis is a causative factor in producing carcinoma of the gallbladder. Carcinoma of the gallbladder is a relatively rare disease. There are only 1 or 2 in 100 gallbladders removed surgically that show carcinoma of the gallbladder. But a patient who has gallstones in the gallbladder walks around like a man who has a hernia—in the shadow of incarceration. A man who has cholelithiasis never knows when that will flare up into an acute cholecystitis, and that is the reason why gallbladders with gallstones should be removed and not because of the remote possibility that carcinoma of the gallbladder may develop in them.

Drs. Curb, Barton, Heard, and Halpert, Veterans Administration Hospital, 2002 Holcombe Boulevard, Houston 31.

Are Doctors Really Scarce?

The broad issue of federal construction grants for medical schools pending before the eighty-fifth Congress again raises the question, "To what extent is there a physician shortage in the United States?"

The administration maintains that the need for more doctors is increasing rapidly, and therefore the schools for training physicians and research scientists must train more of them. Many schools already are in serious financial trouble, says Marion B. Folsom, Secretary of Health, Education, and Welfare.

To solve this problem, the administration wants to broaden the program enacted last year for $30,000,000 a year for three years to help build and equip various research laboratories. Although requests totaling more than $100,000,000 were received shortly after the enactment of this program, members of congressional committees considering raising the allotment will want to know just how short the country is of doctors, and whether reports of shortages take into account the increased productivity of each physician in the light of new techniques and medical advances.

Hepatic Coma

Recognition and Therapy

WILLIAM T. ARNOLD, M. D., and STANLEY J. ZIMMERMAN, M. D.

Houston, Texas

THERE has been a surge of clinical interest in the use of sodium glutamate in hepatic coma since Walshe's article in 1953. One of the big questions which arose in the theory that an increase in blood ammonia produced hepatic coma was that some patients who showed clinical evidence of hepatic coma did not have an elevated blood ammonia level. An explanation was found with the work of Bessman and others.[1, 2, 3] These investigators found that muscle is capable of taking up ammonia and that a considerable difference may exist between the venous and arterial blood ammonia level. The exact mechanism of why an increase in blood ammonia decreases the activity of the brain is not known, but perhaps the most attractive theory is that alpha-ketoglutaric acid is removed from the Krebs cycle to form glutamic acid which combines with the ammonium.[3] This interrupts the oxidative process in the brain and produces a depression. Krebs cycle intermediates cannot pass the "brain barrier" as they can in muscle tissue, and regeneration of the Krebs cycle in the brain is a slow process once it has been disrupted.[11]

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Two cases of acute exogenous encephalopathy and 1 case of chronic encephalopathy are presented; in each instance, monosodium glutamate was used to bring the patient out of hepatic coma. Included is a general discussion of the causes and treatment of this condition, as well as a summary of applicable clinical findings.

Following a brief discussion of ammonia formation and excretion by the body, 3 cases are reported.

FORMATION AND EXCRETION OF AMMONIA

Proteins, as they pass through the gastrointestinal tract, are broken down into amino acids. The amino acids are absorbed by the small intestine and pass into the circulation. Some of these amino acids are utilized as such; others are conjugated to form body proteins. Ammonia is formed as the result of deamination of these amino acids by the enzyme dehydrogenase[4] (fig. 1).

Two important means of removing this ammonia are (1) the formation of glutamine from glutamic acid (this pathway being the prime concern in this discussion) and (2) the formation of urea by the liver.

Glutamic acid is a nonessential amino acid which is one of the most active amino acids in transamination: In vitro studies have shown that glutamic acid and ammonia, in the presence of tissue and glucose, are converted to glutamine at a moderately rapid rate.[7] The reaction is shown in a simplified form in figure 2.

In the kidney in the presence of glutaminase the glutamine is degraded into glutamic acid and ammonia[11] (fig. 3).

This accounts for 60 per cent of the ammonia eliminated by the kidney.[4]

The second important means of removing ammonia from the blood, namely, the formation of urea by the liver, involves the combination of ammonia, carbon dioxide, and ornithine (ornithine, citrulline, arginine cycle) with the formation of urea[6] (fig. 4).

The urea is then excreted in the urine. It can easily be seen that this route of removing ammonia from the blood would be greatly impaired in severe liver disease.

CASE 1.—J. T. W., a 62 year old white man, was first seen August 9, 1954, at which time he had ascites and edema. He complained of generalized weakness and drowsiness. It was learned that he had been a heavy drinker for the past five years. The physical examination at this time

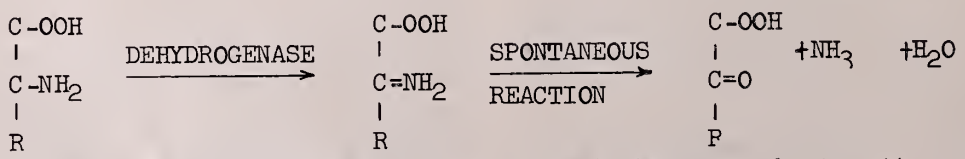

Fig. 1. This formula shows how ammonia is formed by deamination of amino acids. The enzyme dehydrogenase serves as a catalyst.

revealed a well developed obese male. His blood pressure was 140/80, and his pulse was 68. The scleras were icteric, and there were several spider angiomas present. The heart and lungs were normal. The abdomen was protuberant with shifting dullness. The liver was palpated two fingerbreadths below the right costal margin and was hard and nodular but not tender. The tip of the spleen was felt. There was evidence of pitting edema in the lower extremities. The following are results of the laboratory work obtained: Blood studies showed hemoglobin, 13 Gm. per 100 cc.; red blood count 4,040,000 per cubic millimeter; white blood count, 4,000 per cubic millimeter, with segmented cells, 60 per cent; lymphocytes, 32 per cent; monocytes, 4 per cent; and eosinophils, 4 per cent. Total protein was 8.2 Gm. per 100 cc. of serum; albumin, 3.9 Gm.; globulin, 4.3 Gm. Serum bilirubin was 1.2 mg. per 100 cc. Total cephalin flocculation was 3 plus in 24 hours and 4 plus in 48 hours. A bromsulfalein test resulted in 65 per cent retention in 45 minutes. Prothrombic activity was 65 per cent of normal. A barium meal study showed no evidence of esophageal varices. The diagnosis of cirrhosis of the liver was made, and the patient was started on a low sodium, high carbohydrate, high protein, normal fat diet. In addition, he was given daily intravenous infusions of 5 per cent glucose in dextrose in water with B vitamins added. Protein hydrolysate and vitamin B_{12} were given daily. The patient also received 1 grain of thyroid daily. He was followed through the next few months and did well. His cephalin flocculation remained 3 plus but his albumin-globulin ratio was 1.1.

On December 13 the patient developed nausea and vomiting. At this time there was an epidemic of nausea and vomiting in the area, and no great concern was aroused. However, two days later the patient became confused and drowsy, and he developed an awkward gait. Several hours later the patient was comatose. Examination revealed an acutely ill obese male in a deep coma with shallow, slow respiration, blood pressure 150/90, pulse 66, and respiration 16. His scleras were icteric. His lungs and heart were normal. The abdomen was soft, and the liver had decreased greatly in size since his admission to the hospital four months previously. There was a definite ammonia odor to the patient's breath. The patient was in hepatic coma. He was placed in an oxygen tent, and 10 per cent invert sugar solution was started intravenously, and tetracycline was begun intramuscularly. Large doses of vitamin B complex were added to the intravenous infusion. The following laboratory work was obtained: Blood studies showed hemoglobin, 14.5 Gm.; red blood count 4,680,000 per cubic millimeter; white blood count 6,500 per cubic millimeter; segmented cells, 78 per cent; lymphocytes, 15 per cent; stabs, 6 per cent; and monocytes, 1 per cent. In the urine, albumin was 1 plus; there were 15 to 20 white blood cells

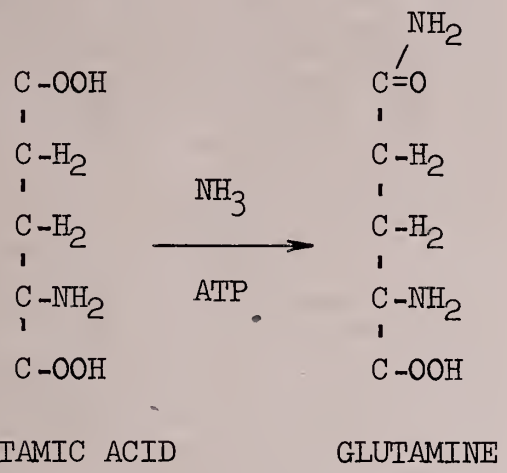

Fig. 2. Glutamic acid and ammonia, in the presence of tissue and glucose, react to form glutamine, thus removing ammonia from the blood.

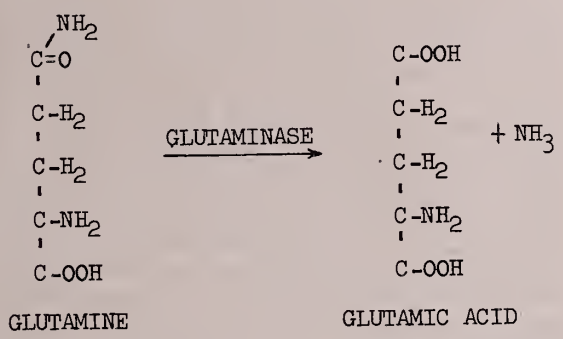

Fig. 3. In the kidney, glutamine reacts with glutaminase to form glutamic acid and ammonia.

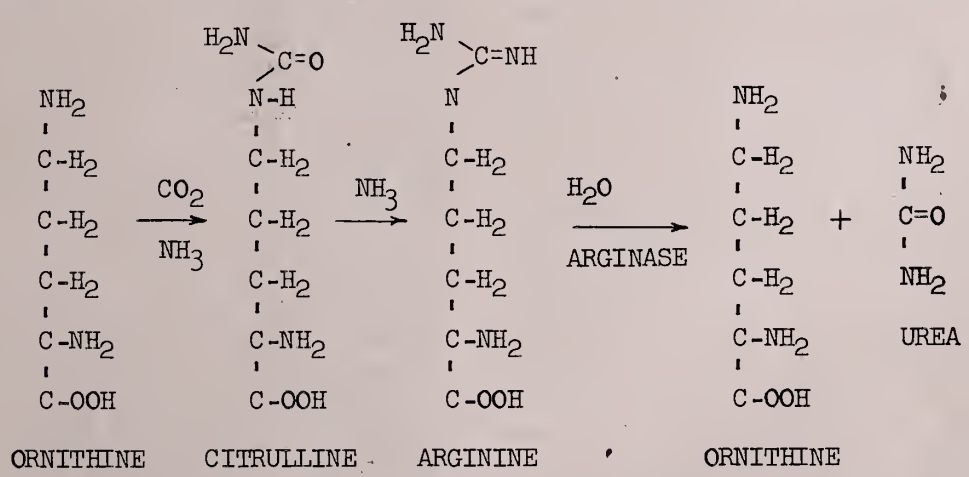

Fig. 4. This formula demonstrates the removal of ammonia from the blood by allowing the liver to convert ammonia to urea, which is excreted in urine.

per high power field. Blood urea nitrogen was 43 mg. per 100 cc. Total cephalin flocculation was 4 plus. Total protein was 7.6 Gm. per 100 cc. of serum; albumin, 3.4 Gm.; globulin, 4.2 Gm. Serum bilirubin was 1.6 mg. per 100 cc. Blood ammonia was 248 micrograms per 100 ml.* The patient received 2,800 cc. of 10 per cent invert sugar during the first 72 hours. The following day there was no improvement in his condition. He remained comatose with labored respiration and had periods of excitement. He continued to receive intravenous carbohydrate.

Because of the patient's poor condition and lack of response to the stated regimen, it was decided to administer intravenous monosodium glutamate solution.† Twenty Gm. were added to 5 per cent glucose in dextrose and water. This was infused during a four hour period. There was no change in eight hours. The evening of December 16, another 20 Gm. of monosodium glutamate solution were given intravenously. Blood ammonia on the morning of December 17 was 228 micrograms per 100 ml. The patient began to move his arms and open his eyes, and it was thought that he had improved. Another 20 Gm. of monosodium glutamate were given that day. The patient was very reactive and belligerent. By December 18 he was rational, and his condition continued to improve; he was given 8 Gm. of monosodium glutamate intravenously December 18. Blood ammonia December 20 was 202 micrograms per 100 ml. The patient was discharged three days later. He has been seen since and has remained in good condition.

‡CASE 2.—L. G. H., a 2½ year old white girl, was admitted to the hospital for the third time January 3, 1955, with ascites and pedal edema. The patient's history dated back to a period shortly after birth when she developed jaundice. She was placed in a hospital in a small town and kept for one month. It was believed that she suffered from a blood incompatibility. The patient continued to show clinical evidence of jaundice. Five months after her birth, she developed diarrhea and vomiting. She was brought to this hospital for the first time in December, 1953. The examination revealed an enlarged liver with considerable abnormality of liver function test results. It was thought that this probably was on an infectious basis. The patient was sent home after a brief hospital stay, but she continued to have diarrhea and vomiting and returned to the hospital January 4, 1954. After considerable laboratory work-up, it was believed that the patient had an obstructive jaundice. An exploratory laparotomy was done January 15. The liver was found to be hard, nodular, and bile-stained. An atresia was present in the lower part of the common duct. A choledochoduodenostomy was performed. The diagnosis of biliary atresia and cirrhosis was made. The postoperative course went smoothly and the jaundice subsided.

The patient was followed at intervals, and there was some improvement in her liver function tests. Occasionally she had slight swelling of her abdomen, but this subsided spontaneously. Eight days prior to her last admission the patient developed measles. The disease lasted three days, and the patient continued to have malaise. Four days prior to admission she began to have swelling in her abdomen and lower extremities. There was no fever, diarrhea, vomiting, or change in the normal color of the urine or stools. The patient was admitted to the hospital for the third time for evaluation and treatment.

The physical examination revealed a well developed, well nourished, white female, who appeared chronically ill but in no acute distress. The heart was not enlarged. There was a rough, grade 2, systolic murmur heard best in the second and third intercostal spaces just to the left of the sternum. No thrills were felt. Femoral pulses were palpable bilaterally. The abdomen was greatly distended. There was shifting dullness present. The liver was palpated three fingerbreadths below the right costal margin. It was firm but not tender. The spleen was greatly enlarged, the tip extending below the umbilicus. There was no evidence of peripheral edema or "liver palms." The remainder of the examination was negative.

The following tests were obtained on admission: Blood studies showed hemoglobin, 10.8 Gm.; red blood count, 3,640,000 per cubic millimeter; white blood count, 4,500 per cubic millimeter with normal differential. Prothrombic activity was 44 per cent of normal. Thymol turbidity was 9.4 units; cephalin flocculation, 4 plus; direct bilirubin, 0.2 mg. per 100 cc.; and indirect bilirubin, 1.5 mg. per 100 cc. Total protein was 5.2 Gm. per 100 cc. of serum; albumin, 2.3 Gm.; globulin, 2.9 Gm.; alkaline phosphatase, 20.8 units; cholesterol, 350 mg. per 100 cc.; and esters, 37 mg. per 100 cc. A bromosulfalein test resulted in 16 per cent retention in 45 minutes. The patient was started on vitamin K; a high carbohydrate, high protein, low salt diet; and therapeutic vitamins. Her condition remained fair. On January 6, 1956, she received 125 cc. of plasma in an attempt to raise her protein level.

On the evening of the ninth, the patient had a severe nose bleed, and the following morning it was noticed that she was lethargic. There was a strong ammonia odor to her breath. She exhibited, for the first time, typical "liver palms." It was thought that the patient was going into hepatic coma. A blood ammonia determination was 188 micrograms per 100 ml. The patient was started on 5 per cent glucose in dextrose in water with vitamin B complex and vitamin K added. She was given 35 cc. of salt-poor albumin intravenously. The patient's condition was listed as critical, and by the eleventh there were no signs of improvement. It was decided to start the patient on 5 Gm. of monosodium glutamate in 500 cc. of 10 per cent levulose. A blood ammonia level following the infusion was 154 micrograms per 100 ml. The patient's condition changed little. On January 12, she was given 12 Gm. of monosodium glutamate in 500 cc. of 10 per cent levulose, and by evening she seemed much improved and was responsive. Blood ammonia the next day was 138 micrograms per 100 ml. During the following three days, she received 12 Gm., 8 Gm., and 4 Gm. of intravenous monosodium glutamate. The patient was started on cortisone January 16 because it was thought a smoldering hepatitis might be present. Blood ammonia on the seventeenth was 186 micrograms per 100 ml., but the patient was not lethargic. By January 25, the blood ammonia had dropped to 132 micrograms per 100 ml. At present, the patient is doing well.

CASE 3.—A. M. S., a 43 year old man known to be a chronic alcoholic, was diagnosed as having hepatitis in World War II. He was seen in June, 1951, because of jaundice and ascites. Three weeks previously, the patient had drunk excessively. The physical examination at that time revealed a well developed, well nourished, white male who was jaundiced and appeared acutely ill. His blood pressure was 130/85, pulse 84, respiration 16, and temperature 99.6 F. The scleras were markedly icteric. There was telangiectasia over the chest and back. The lungs and heart were within normal limits. The abdomen was protuberant and had a fluid wave. Epigastric vessels were prom-

**Normal values in our laboratory range from 20-180 mg. per 100 ml.*

†Kindly supplied by the Sherman Laboratories, Detroit, Mich.

‡We are indebted to Dr. Joseph Stool of Houston for permission to use this case.

inent, and the liver was down four fingerbreadths below the right costal margin, firm, nodular, and nontender. The spleen also was palpable. Blood studies showed: hemoglobin, 12.8 Gm. per 100 cc.; red blood count, 4,060,000 per cubic millimeter; white blood count, 17,500 per cubic millimeter; cholesterol, 208 mg. per 100 cc.; and esters, 56.1 mg. per 100 cc. Total protein was 6.4 Gm. per 100 cc. of serum; albumin, 3.3 Gm.; and globulin, 3.1 Gm. Alkaline phosphatase was 7.8 Bodansky units. Direct bilirubin was 9.85 mg. per 100 cc. of serum, and indirect bilirubin was 14.12 mg. per 100 cc. of serum. Cephalin flocculation was 2 plus in 24 hours, and prothrombic activity was 38 per cent of normal.

The patient was started on the usual regimen of high protein, high carbohydrate, low fat diet, Hykinone, and intrahepatal, extra protein feedings, and Crysticillin for a chronic bronchitis. After two weeks the patient had improved markedly and was discharged.

He was admitted to the hospital again in September, 1952, because of nausea and vomiting following excessive alcohol intake five days previously. The physical examination was unchanged from the previous admission except that the liver and spleen were not palpable. The complete blood count was essentially normal. Prothrombic activity was 69 per cent of normal, and the cephalin flocculation was 3 plus in 48 hours. The thymol turbidity was 2.2 units. The patient was started on the usual diet regimen and was given intravenous infusions of 10 per cent glucose with added vitamins and 25 mg. of ACTH twice a day. After six days he had improved clinically and was discharged.

In November, 1952, the patient again was admitted following an alcoholic bout. The physical examination and laboratory data were unchanged since the previous admissions. The patient was started on the before-mentioned diet, supplementary vitamins, and ACTH. After 12 days he had improved and was discharged.

He was readmitted in October, 1953, for weight gain and ascites following ingestion of large quantities of alcohol. Physical examination was unchanged except that the icteric scleras were not as apparent. The laboratory data were unchanged except that the total bilirubin was now 1.4 mg. per 100 cc., and a more apparent reversal of the albumin-globulin ratio was present. The patient remained in the hospital on the therapeutic regimen usually employed for him, except ACTH was not given. He was discharged in one week.

The patient's fifth admission was in September, 1954, for a bleeding duodenal ulcer proven by roentgen ray. There was no evidence of esophageal varices at that time. His hemoglobin on admission was 6.2 Gm. After vigorous medical treatment of the ulcer, in addition to 2,000 cc. of blood, the patient was clinically improved and was discharged in 12 days.

In October, 1954, approximately 14 weeks following bleeding from his duodenal ulcer, he was admitted for the sixth time. He had noticed a feeling of euphoria for two or three days before his admission. This gradually changed to mental confusion and instability of gait. When the patient was seen, he was semicomatose and had a "flapping tremor." The deep tendon reflexes were hypoactive bilaterally. There was no Babinski reflex present. The remainder of the physical examination was unchanged from previous admissions. The patient was immediately started on intravenous invert sugar in water, and he was placed in an oxygen tent. Serum chloride, potassium, and sodium levels were within normal limits, and the carbon dioxide combining power and blood urea nitrogen were normal. The patient became rational within the next 24 hours, and was started on a high carbohydrate, low fat, low protein diet in addition to intravenous invert sugar solution. He was discharged after five days with considerable improvement.

He was admitted again in November, 1954, five days after an alcoholic bout. The patient developed euphoria followed by instability of gait, thickness of speech, flapping tremor, and mental confusion. He was started on intravenous invert sugar in dextrose in water, oxygen by tent, and 250 mg. of Achromycin every six hours. He also was given a high carbohydrate diet with no meat and 1,000 micrograms of vitamin B_{12} daily. After four days the patient was discharged much improved.

The patient's latest admission was in December, 1955. At this time he again had a preceding euphoria followed by instability of gait, mental confusion, and flapping tremor. The usual regimen was employed, and after four days he was discharged much improved. He has been followed and is doing well.

DISCUSSION

The term "hepatic coma" refers to the patient with diseases of the liver or portal circulation who manifests varying degrees of encephalopathy. The term itself is confusing because not all patients who have diseases of the liver and portal circulation, and evidence varying degrees of central nervous system disturbance, actually progress to a comatose state.

In 1893, Pavlov and his associates first described the occurrence of "meat intoxication" in the Eck-fistula dog.[5] Since that time numerous investigators have pursued the research and have shown a relationship between blood ammonia levels and coma and actually have induced coma in cirrhotic patients with the use of ammonium chloride.[9, 12, 13]

McDermott and his colleagues delineated the clinical picture of hepatic coma and the relationship to the blood ammonia levels and defined the specific syndrome of ammonia intoxication related to the ingestion of nitrogenous substances in the presence of a patient with varying types of disorders of the liver or portal circulation.[10] They showed that not all patients with liver disease and concurrent central nervous system symptoms demonstrate the same type of disturbance in ammonia metabolism. It is apparent that there is not always an exact correlation between the actual level of ammonia in the peripheral venous blood and the status of the sensorium in the patient. One cannot refer to all cases of encephalopathy and liver disease as examples of ammonia intoxication. Indeed, this would be an oversimplification of the problem, which, no doubt, entails many basic metabolic disturbances.

McDermott has divided the encephalopathies clinically into three groups: (1) the acute spontaneous, (2) the acute exogenous, and (3) the chronic.[10] The acute spontaneous group consists of patients with advanced liver disease who have central nervous system signs and symptoms without any precipitating factors such as the ingestion of protein, ammonium chloride,

or urea diuretic, and without evidence of bleeding into the gastrointestinal tract. The acute exogenous group represents persons with well compensated livers who have acute episodes of central nervous system signs and symptoms, precipitated by a variety of exogenous factors such as gastrointestinal hemorrhage, oral administration of ammonium chloride, or high protein feeding; in other words, the important factor in this group is the introduction into the gastrointestinal tract of large amounts of nitrogenous substances. In the chronic group are those suffering from chronic disease of the liver or portal circulation who evidence a chronic confused state without any rapid progression to coma and without any apparent spontaneous exacerbations or remissions.

It has been shown that patients classified under the acute spontaneous encephalopathy receive little ultimate value from the treatment with l-glutamic acid, although transient improvement may occur. Those patients in the acute exogenous and the chronic encephalopathy groups show a distinct improvement.[10]

CLINICAL MATERIAL

Cases 1 and 2 are instances of acute exogenous cases of encephalopathy associated with cirrhosis. In each instance, the exogenous cause appeared to be that of an infectious process overwhelming an already diseased liver. The first case is that of a 59 year old man with acute gastroenteritis, and the second is a 2½ year old girl with an exanthem. The third case represents the chronic type of encephalopathy which has been followed for five years and has manifested varying degrees of central nervous system disease without any precipitating factors except on one occasion. This occurred when the patient could have been classified as having an acute exogenous type of encephalopathy due to the bleeding of a duodenal ulcer which no doubt increased the nitrogenous substance in his gastrointestinal tract and produced the impending coma characteristically seen in these patients. However, he responded to the usual measures for impending coma which are discussed under treatment, and intravenous monosodium glutamate was never instituted. This patient has been in and out of impending coma on several occasions since that time without any apparent exogenous cause, and therefore we have classified him under the chronic type of encephalopathy.

An interesting aspect of cases 1 and 2 is that in case 1, the blood ammonia level was elevated above the normal range, yet the patient was not in coma. In case 2 the ammonia level fell into the normal range, but rose to within 2 micrograms of the original coma level without the patient going back into coma. We have postulated that the infusion of glutamic acid combines with the ammonia, thus preventing it from draining the Krebs cycle in the brain cells of its alpha-ketoglutaric acid. By preventing the draining of alpha-ketoglutaric acid, the Krebs cycle rebuilds its components, and the oxidative process again is adequate. This is true even if the blood ammonia level is elevated. If the liver does not compensate within a short period of time, or if glutamic acid infusions are not continued, the patient will slip back into coma.

TREATMENT

In two instances monosodium glutamate proved to be a valuable aid in lowering the blood ammonia level and improving the clinical status of the encephalopathy during the infusion with monosodium glutamate. In addition to the use of intravenous glutamate, patients were given continuous oxygen by tent which is thought to increase oxygenation of the diseased liver cells, thereby increasing the liver function. Increasing liver function decreases the ammonia level as well as other metabolic disturbances. In addition the patients were given large doses of intravenous glucose to aid the failing liver. Other workers have pointed out that the use of the various antibiotics to change the bacterial flora content of the intestinal tract would reduce the amount of ammonia absorbed from the intestinal tract and in turn would aid in the reduction of circulating blood ammonia.[8] It is further advisable to maintain these patients on a low protein intake once they begin to ingest food by mouth. In instances where there has been bleeding into the gastrointestinal tract, a purge to rid the small bowel and colon of the accumulated blood serves to reduce the absorption of nitrogenous products from the intestine. All these measures were used as adjuncts to the treatment of the 2 cases which were treated with intravenous sodium glutamate. These measures also were used in the treatment of the chronic case of encephalopathy with an adequate response of the patient, and it never was necessary to use intravenous sodium glutamate. In case 1, the patient was maintained on glutamic acid by mouth, and we agree that approximately 25 Gm. per day is adequate. We believe that it has been of value both in restoring normal mental status and in achieving a drop in blood ammonia level.

It has been pointed out that glutamic acid has not been invariably effective;[15] however, the investigation was primarily concerned with the spontaneous type of hepatic coma. We believe that ammonia intoxication is a specific cause of encephalopathy in patients with damaged livers, but disturbances in ammonia metabolism are only one facet of the complex biochemical changes associated with the decompensated

liver. l-Glutamic acid has a definite role in the treatment of encephalopathy associated with liver disorders, but it cannot restore or replace a failing liver.

CONCLUSIONS

Experience with the various types of encephalopathies associated with cirrhosis has been presented. In cases of acute exogenous type of encephalopathy, monosodium glutamate has been of value in returning these patients from coma. We believe that the usual adjunct measures as described also were of value, and in our chronic case of encephalopathy these measures have sufficed to bring the patient out of impending coma. It is interesting to note that in our 2 cases of acute exogenous coma it was our feeling that the superimposed infection in each instance, and the failing liver, was the cause of the coma, which apparently was correct as evidenced by the response in each instance to intravenous monosodium glutamate.

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Amebic Liver Abscess

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IN THIS DAY and age in which the laboratory has become the sine qua non in medical diagnosis, it is worth while to reconsider those clinical entities in which diagnosis depends primarily upon the physician's awareness and acumen. Such an entity is amebic liver abscess. If one waits until an etiologic agent is recovered before starting therapy, he often will have his diagnosis made at the autopsy table. Our experience with 20 cases of amebic liver abscess that have been reported in some detail elsewhere[11] has impressed this upon us. The organism was detected in only 2 patients. In the remainder, the diagnosis was made by therapeutic response or the appearance of the pus in the abscess cavity. Three patients died undiagnosed until postmortem examination.

Dr. Marcel Patterson and his coauthor offer this paper from the Department of Internal Medicine and the John Sealy Hospital, University of Texas Medical Branch.

Amebic liver abscess must be diagnosed primarily by the clinical picture, and treatment often must be started on clinical suspicion. Upper right abdominal or lower right chest inflammation, mild anemia, and leukocytosis with little derangement in liver function tests other than decreased serum protein suggest the condition, which is best treated with chloroquine.

CLINICAL PICTURE

In our experience, the patient with amebic liver abscess is usually a middle aged man who lives in a small community or rural area and makes his living by manual labor. He often has been ill for several months (the average duration of symptoms was four months) before we see him and is obviously ill when he appears. The initial symptom is usually pain which may be dull or sharp and is occasionally pleuritic. It

is located in the right upper quadrant of the abdomen and the epigastrium. Cough and the location of the pain with radiation to the right side of the chest and shoulder may suggest primary pulmonary disease. This was the case in more than half of this group of patients. The picture may be extremely confusing where the abscess is in the left lobe of the liver.

Associated with the pain, one notes constitutional symptoms of fever, weight loss, anorexia, weakness, and sweats. The fever is usually low grade and intermittent. The weight loss is striking. Jaundice was seen in only 2 cases and when present was of an extremely mild degree. Diarrhea is not a prominent complaint.

Physical examination confirms the history of weight loss and chronic illness. Elevation of the right diaphragm and rales at the right base are commonly detected. The liver is generally palpable and tender. There may be guarding and splinting of that region of the abdomen. At times, a tender mass will be felt.

LABORATORY AND ROENTGEN-RAY FINDINGS

In our experience, there is often a mild anemia and a leukocytosis of more than 10,000 leukocytes with a mild to moderate neutrophilia. The sedimentation rate is elevated. The urine shows a mild degree of albuminuria. We were able to detect Entamoeba histolytica in the stool in only one instance. The lack of detectable parasites in the stool in many of these cases has been noted by others.[5, 9, 12] The widespread use of broad spectrum antibiotics in fevers of undetermined cause is possibly increasing the difficulty of detecting the parasite.

Liver function tests are frequently within normal limits except for lowering of the serum protein level. This finding has been stressed by Sodeman,[12, 13, 14, 15] who also noted as we did that there is more evidence for liver disease on physical examination than there is in laboratory findings.

The status of the complement fixation test in amebiasis is unsettled. There are considerable data[7, 8, 16] indicating that the test is worth while in liver abscess. Yet at this writing, it is not available to physicians except in certain research laboratories. The significance of the test depends upon the demonstration of a rising titer. It may confirm a diagnosis some weeks later, but it is not of much help at the time the patient is first seen.

The chest roentgenogram often will reveal evidences of an inflammatory process in the lower lobe of the right lung, such as elevation and diminished mobility of the right diaphragm and fluid at the right base. Of considerable diagnostic importance when it is noted[6] is the obliteration of the right cardiophrenic angle on the postero-anterior chest film and the obliteration of the anterior costophrenic angle on the lateral film. Distortion of the right kidney may be noted by pyelographic study. In median and left lobe abscess there may be displacement of the stomach along the greater curvature.

Aspiration of the liver and the obtaining of a "chocolate brown" or "anchovy sauce" colored material is diagnostic.[12, 13, 14, 15] This material does not have an offensive odor and rarely contains the parasite. If secondary infection has occurred, the material is purulent and odoriferous. The replacement of air in the aspirated cavity provides an excellent means for visualizing the extent of the cavity, the location, and the fluid residue and may be useful in determining the need for additional aspirations.

TREATMENT

The introduction of chloroquine diphosphate in the treatment of amebic liver abscess by Conan[2, 3] in 1948 has almost replaced the use of emetine. This drug is less amebicidal than emetine, but it is concentrated some 1,500 times in the human liver and there are many reports of its successful use. It is much less toxic except for mild and transient headaches, light headedness, disturbances of visual accommodation, pruritus, and mild gastrointestinal complaints.[1] The recommended dose is 1 Gm. (4 tablets) daily for two days, followed by 0.5 Gm. (2 tablets) daily for two to three weeks.[2, 3] In some instances doubling the dosage results in good response when the aforementioned dosage schedule fails.[12, 13, 14, 15] Therapy may be unsuccessful if there is secondary infection or an unusually large abscess cavity. In the latter instance, closed drainage of the abscess and a repetition of the therapy is often successful.[12, 13, 14, 15] The necessity of repeated aspirations can be determined by the clinical response and by the disappearance of the leukocytosis.

There seem to be few, if any, indications for open drainage of uncomplicated amebic liver abscess,[4] but with the advent of antibiotics the previous dread of such an occurrence does not seem justified. In 4 of our patients, the preoperative diagnosis was not made and the surgeon unsuspectingly drained the cavity. There was 1 death. Autopsy showed that a perforated amebic appendiceal ulcer with peritonitis was the likely cause of death in this case.

The response to therapy is usually dramatic in this disease, the fever and other constitutional symptoms often abating within 24 to 48 hours of commencing chloroquine therapy. It should always be assumed, though it is difficult to prove, that amebic hepatitis and abscess must arise from colonic infec-

tion. Chloroquine is not effective against gastrointestinal amebiasis, and some drug must be given to rid the colon of the organism. We had chosen Terramycin 0.5 Gm. every six hours for 12 days on the basis of reports[10] indicating it was the drug of choice although there is a growing body of evidence[17] indicating the relapse rate is higher with the broad spectrum antibiotics. One of the arsenical or iodoquinoline derivatives is probably a better choice. We have had no experience in the use of materials instilled directly into the cavity.

SUMMARY

Amebic liver abscess in most instances must be diagnosed by the clinical picture, as it may be impossible to demonstrate the offending organism. This clinical picture is one of an inflammatory process localized in the right upper part of the abdomen or right lower part of the chest. The laboratory findings are those of a mild anemia and leukocytosis with little derangement in liver function test aside from lowered serum protein levels. The abscess material obtained by closed drainage is diagnostic in appearance. Treatment often must be started on clinical suspicion. The drug of choice is chloroquine with Terramycin to rid the patient of an intestinal infection which must be assumed to be present. The treatment is often successful when the diagnosis is correct, unless there is secondary extension and infection, or a large abscess is present which requires closed drainage.

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Surgery: A Cultural Factor In Early Texas

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IF MY SUBJECT is to be justified, it first must be established that a real culture existed in the Texas of long ago. Certainly, it is significant that Stephen F. Austin required that his colonists be of good character and be able to read and write. "No drunkard, no gambler, no profane swearer, no idler will be received," he wrote.[3]

Dr. Pat Ireland Nixon, immediate past president of the Texas Surgical Society, presented this paper as his presidential address October 1, 1956, in San Antonio. He is author of "A History of the Texas Medical Association, 1853-1953" and "The Medical Story of Early Texas."

Tapping many historical sources, Dr. Nixon has drawn vivid scenes of early surgery and its progress in Texas. Through the initiative of pioneer physicians, the practice and art of surgery was advanced not only in this state, but in other areas where surgeons heard of the Texans' work.

There was obstetrical culture in some lessons learned by a tenderfoot up in the plains country. He began to hear about the high velocity of the winds in the

area. He was told of a 2 by 4 scantling being blown through a 2 foot tree. He heard of a washpan, rolled across the prairie by the winds of a brisk norther, being worn down to the size of a Truman nickel. This and much more he was told. And then one day he saw two cowboys doing an extraction on a cow in obstetrical difficulty. One had his rope on the horns of the cow and the other had his rope on the hind feet of the calf. The tenderfoot watched the procedure for a while and then said: "You fellers are in trouble and I can't help you. But I would like to ask one question: how fast was that calf traveling when he hit that cow?"

No discussion of culture in Texas could omit Dr. Ashbel Smith, who was the most polished and classical scholar in all Texas of his day. He speaks casually of reading the New Testament in Greek. In 1849, Daniel Webster was scheduled to deliver the Phi Beta Kappa address at Yale. Illness prevented his appearance, and Ashbel Smith was selected to take his place.[13] So from some angles at least, early Texas did have a culture.

SPANISH DAYS

Sir Clifford Allbutt, in his absorbing essay on "The Historical Relations of Medicine and Surgery," recalls that "no less a man than Galileo declined to make public his secret of grinding lenses till near his death." And then he records that a veterinary surgeon, given to treating humans, a century before Lister,

> flourished greatly in Yorkshire as a marvellously successful operator, astutely evaded all prying and questioning into his secret, even when in imminent peril on a bed of sickness. He survived to carry all before him for many years longer. At length, bowed down by old age and decrepitude, he was again implored by his son to tell what he did in the secret half-hour before operating. Life was ebbing at last, and the worn out old man whispered with his passing breath, "I biles my tools."[1]

A comparable situation, but in reverse, was faced by Cabeza de Vaca, who was the first white man on Texas soil and who recorded the first operation in this area. His knowledge of surgery was practically nil, but the Indians thought he was a god and they made of him a deified medicine man. In this capacity, he removed an arrowhead from the chest wall of an Indian. With much pride and no small display of exaggeration, he reported the operation to his queen:

> With a knife I carried, I opened the breast to the place, and saw the point was aslant and troublesome to take out. I continued to cut, and, putting in the point of the knife, at last with great difficulty I drew the head forth. It was very large. With the bone of a deer, and by virtue of my calling, I made two stitches that threw the blood over me, and with hair from a skin I stanched the flow. They asked me for the arrow-head after I had taken it out, which I gave, when the whole town came to look at it. They sent it into the back country that the people there might view it. In consequence of this operation they had many of their customary dances and festivities. The next day I cut the two stitches and the Indian was well. The wound I made appeared only like a seam in the palm of the hand. He said he felt no pain or sensitiveness in it whatsoever.[20]

Leonardo da Vinci had been dead 15 years and Vesalius was only 20 years old. His "Fabrica" was nine years in the future. In brief, this operation was done 422 years ago.

Medical conditions in Spanish Texas were primitive. The first hospital of any consequence was in the Alamo during the years 1805-1814. The first beds were of straw and were placed on the floor. Later lumber was provided for building 30 beds.[5] As one glances through the "Bexar Archives," it is obvious that the trials and tribulations that beset the early doctors and hospital administrators were but harbingers of things to come.

The operation of cesarean section goes back into ancient history and the results were uniformly bad. In one era, better results were obtained by the horns of infuriated bulls than by the hand of man. A Spanish royal decree dealing with this subject reached San Antonio in 1804. The decree set forth that all women dying in childbirth must have a cesarean section. If one were available, the operation would be done by a doctor; otherwise, the responsibility would pass to a priest or a layman trained for the emergency.[6]

Captain Jesse Burnam, one of Austin's colonists, tells of an operation in which he participated:

> You ask me to tell you about taking a man's leg off. I was living on the Colorado at the time. His name was Parker and he lived on the opposite side of the river. His leg was terribly diseased and he begged us to cut it off two months before we consented. One day he sent for me. I went over and he took hold of my hand with both his and said, "Oh, have you come to take my leg off?" I said, "Yes, I have come to do anything you want me to do." "That is right," he said. "If I die I don't want to take it with me." So Tom Williams, Kuykendall, Bostick and I undertook the job with a dull saw and shoe knife, the only tools we had. I heated and bent a needle to take up the arteries with. I was to have the management of it and hold the flesh back. Tom Williams was to do the cutting of the flesh, Bostick to saw the bone, and Kuykendall to do the sewing. I took his suspenders off and bandaged the leg just above where we wanted to cut. I put a hair rope over the bandages, put a stick in it, and twisted it just as long as I could, then I was ready to begin operation. When Mr. Kuykendall began to sew he trembled, so I took the needle and finished it. Parker rested easy for several days; but the third day he complained of his heel hurting on the other foot, and on the eleventh day he died.[7]

There are few stories of heroism and hardihood that parallel the experiences of James Whitiley. As he and Reuben Ross were returning from Mexico in 1828, they were set upon at night by robbers as they slept in camp 40 miles north of Laredo. Ross was shot through the abdomen and died instantly. "Whitiley was shot the ball entering in the ring of the left

nipple passing through him about 3½ inches below the right nipple in its pasage shattering the inside of the breast bone near its entrance pasing through his lungs and cuting in too the right side of the breast bone from the center & breaking two of his ribbs." He naturally thought his wounds were fatal so he lay down beside his dead companion. With the coming of morning, he found he had strength to saddle his horse and start for Laredo. Riding was quite painful, so he walked a good part of the time, all the while bleeding freely from his mouth and both wounds. Several times he lay down from exhaustion, each time being sure he would never rise again. After an insufferable journey of two days and one night, he reached Laredo in a desperate condition. Infection had developed and his condition became critical. At his insistence, a Mexican woman made two incisions in the chest wall and removed 13 pieces of shattered bone. At the end of six weeks he insisted on returning to his home in the United States. An escort of soldiers accompanied him as far as San Antonio. He was so weak that at each stop he had to be lifted from his horse. At San Antonio, he employed a man to go with him to Fort Gibson, Miss. The remainder of the journey to White City, Tenn., was made alone.[16]

IMPROVIZATION

It will be understood that for many early Texas doctors, opportunities for cultural interests were few. Adaptability and resourcefulness, however, were ever present. In 1854, Dr. J. Cam Massie of Houston published a book which he called "A Treatise on the Eclectic Southern Practice," a worthy publication. For the control of nosebleed, he recommended that the doctor should "introduce into the nostril a piece of the intestine of the hog, closed at one end, then to inject cold water forcibly and tie the other end."[12]

Twenty-four years ago, Dr. A. O. Singleton read a paper before the Texas Surgical Society which he called "An Account of the Early History of Surgery in Texas." Dr. Singleton understood the hardships which our surgical ancestors endured and the primitive conditions under which they worked. From this important paper, I want to cite the illustrative experience of Dr. Hillary Ryan of Galveston as set forth in a paper, "Lithotomy, Operation under Extraordinary Disadvantages," read before the Texas Medical Association in 1875. Some months before he was seen by Dr. Ryan, a man passed a squirrel tail into his urethra (whether as a contraceptive or as an aphrodisiac, it is not recorded) and a large stone had formed around it in the bladder. Two operations were performed. The first was done at midnight with the assistance of three boys, and an ordinary pocketknife was used to incise the perineum. A finger was introduced into the bladder, and a stone about 1 inch in diameter was removed. A larger stone was left in the bladder because the amateur anesthetist thought the patient was dying. Greater preparation was made for the second operation. These are Dr. Ryan's words:

> In the beginning of the winter I was informed that he was much worse and wished to see me again. I requested Dr. Oliver to get some lithotomy instruments in Galveston. He could not buy any, but Dr. C. W. Trueheart was kind enough to loan me a director. I was then taken sick and confined for several weeks. As soon as I could ride I visited him, and with the assistance of Dr. Oliver, proceeded again to operate. We passed the director into the bladder and made an incision into the urethra, passed a probe bistoury in, as before, and made a cut in the same direction, to the left of the rectum. As soon as the cut would permit the finger to pass into the bladder, the director was withdrawn and the finger used. The opening was enlarged very slowly and carefully until we had extended it for about two inches and a half; we then, with some difficulty, drew out a stone one inch and a half thick by three and a half long, and *in it the squirrel's tail,* of about five inches in length, one inch and a half bent on itself. It was in good state of preservation and looked very much like salted meat. Owing to the great length of the cut we took two stitches in it, prescribing the usual treatment, and left him.
>
> I requested Dr. Oliver to see him but he did not do it, and it was just ten days before I could go to see him. I found him up, passing his water the natural way. Apparently well, I took the stitches out. Although I washed out the bladder with a Davidson's syringe at the time of the operation, he informed me that he had passed a great many small stones. He has been well ever since.[17]

No backward glance at the surgeons of early Texas should omit a brief mention of Dr. Greensville Dowell and Dr. Berthold E. Hadra. Dr. Dowell, professor of surgery in the Galveston Medical College and editor of the *Galveston Medical Journal,* was the first to suggest that the mosquito was the transmitting agent of yellow fever. He devised an operation for hernia in 1859, 30 years before Halsted and Bassini. In 1876, he published his book, "A Treatise on Hernia." Before the American Medical Association, he exhibited the instruments which he had devised and reported 96 operations and 80 cures. One of these was on a German sailor who got drunk twice in the hospital and fell down an 8 foot ladder. This was one of his cures.[9]

Dr. Hadra, also professor of surgery in the Galveston Medical College and member of the first board of regents of the University of Texas, was the first surgeon to use wire for internal fixation of the spine. He was as honest as he was capable. To quote again from Dr. Singleton's paper:

> My distinguished friend Dr. A. C. Scott, makes the following interesting statement in regard to Dr. Hadra: "Doctor Hadra, who was, as you perhaps remember, Professor of Surgery in the old Galveston Medical College, performed nine Kraske operations for cancer of the rectum, and published his report of these cases. Dr. Nicholas Senn of Chicago became interested in Doctor Hadra's work, and while

on a duck hunting trip to Texas he expressed a desire to have an interview with Doctor Hadra regarding his work. Accordingly, a visit to Doctor Hadra's office was arranged, and I had the pleasure of listening for about two hours to a detailed report of the cases. Doctor Hadra exhibited the pathological specimens, each one of which was removed from the fruit jar in which it had been carefully preserved. There was much discussion between the two surgeons, part of which I could not understand because they occasionally spoke in German, but I could tell that Doctor Senn was deeply interested and highly pleased with Doctor Hadra's description of his work. It happened that as we were about to bid Doctor Hadra good-by, I, without thought of embarrassing anyone, permitted my curiosity to get the best of me, and I asked Doctor Hadra what percentage of the patients who had received the benefit of this operation had recovered, to which he very promptly replied, 'They all died —they all died'."[19]

But Dr. Hadra will be best remembered as a pioneer in the repair of injuries to the pelvic floor. This work was described in his book, "Lesions of the Vagina and Pelvic Floor," published in 1888. Leonardo, in his "History of Gynecology" has this to say: "While Emmet had recognized the importance of the fascia of the anterior vaginal wall, no great progress was made until Hadra of Texas, in 1888, first used the method of flap-splitting and of elevating the bladder."[11]

COMMITTEE REPORTS

As a termination to the surgical progress of early Texas, I would like to relate the work of two surgeons, Dr. E. J. Beall and Dr. George Cupples.

Dr. Beall, in a report for the Committee on Surgery before the Texas Medical Association in 1885, referred to the brilliant abdominal surgery that was being done by surgeons such as Billroth, Bergmann, and Kocher. He reminded his hearers that radical cure of inguinal hernia by excision and ligation of the sac was being revived. He dismissed the advocacy of castration as assurance of firmer closure by observing that "it is particularly easy to estimate lightly the importance of another man's testicles."[4]

As a footnote to Dr. Beall's observations, Dr. Felix Wurtz, prominent German surgeon of the sixteenth century, had this to say: "Never, if you can help it, bereave a man of any part; for God's grace may be great upon it beyond the expectation of men."[2]

And here in Texas, as reported in the *Texas Medical Journal* in 1899, a druggist from Hearne decided to castrate himself. His doctor, who was slow to accept the new fangled germ theory made this report:

> He proceeded to do the operation on a quick and non-expensive, non-aseptic plan. He applied cocaine solution to his scrotum till all sensibility of the parts was destroyed, and with a common tobacco pocket-knife opened the scrotal sack and took out his testicles, severed the cord, and put the organs away in a pickle bottle, and has them preserved in alcohol. There was much bleeding but no infection. The success of this operation, without any regard to the "aseptic regime," certainly knocks out that fad.[14]

The most significant part of Dr. Beall's report dealt with carcinoma of the breast. He reported 5 cases in which he had removed the breast and axillary glands. A lump in the breast meant potential trouble. "Whenever you find a tumor of the female breast," he said, "strike! remove it as quickly as you get the opportunity; it matters little what may be its exact nature. Remove it first, and make the diagnosis afterwards, for a woman with a tumor of the breast is a disturbed, an uneasy woman." And this advice of Dr. Beall was given 71 years ago.

As a further footnote to Dr. Beall's work, there was published in Mexico City in 1788 a book, "Compendio de la Medicina," written by Juan Manuel Venegas. The author wisely comments, "Cancer is very rarely subject to a radical cure, only if superficial, movable and circumscribed. If adherent, deep-seated, or ulcerated, there is no cure except palliation."[21]

More brilliant yet was the 1886 report of the Special Committee on Surgery of the Texas Medical Association, with Dr. Cupples as chairman and author. The report entailed a prodigious amount of work and Dr. Cupples was justly proud:

> The surgeons of Texas, country doctors though they be, though no long string of academic honors illustrate their names, are second to those of no country in the variety, the boldness and the success of their operations, in practical skill, in fertility of resources, and in that self-reliance founded on knowledge, without which no man can be a successful surgeon.

By way of preparation of this significant document, Dr. Cupples sent out more than 6,000 questionnaires, 700 letters, and 1,500 postcards.

The report is presented under the following headings: "Amputations and Dislocations"; "Resections of Bone in Continuity"; "Ligation of Arteries"; "Tumours, Noteworthy for Size, Site, Character, etc."; "Operations Involving the Head and Neck"; "Operations Involving the Thorax"; "Operations Involving the Abdomen"; "Operations Involving the Rectum and Anus"; "Operations Involving the Male Genital and Urinary Organs"; "Operations Involving the Female Urinary Organs"; "Divers Operations Involving Bone"; "Plastic Operations"; "Operations on Organs of Special Sense"; and "Miscellaneous Operations." And then there is finally an "Abstract of Operations, Recoveries, and Deaths in Each Class."

Some of these operations were done "under the most difficult circumstances, deprived even of necessary instruments, and, as has fallen to the lot of some of our number, compelled to amputate a limb in a negro cabin with a bowie knife and a carpenter's saw." It took courage to do surgery when faced with mortality rates like these: trephining, 15 per cent; splenectomy, 100 per cent; herniotomy, 26 per cent;

abdominal hysterectomy, 92 per cent; transfusion, 75 per cent; all major operations (2,080), 16 per cent.

Many of these operations were done in pre-Listerian times; naturally the later results were much better. But there was no juggling of statistics here: the bad went in with the good.

This report is a signpost in the advance of surgery in Texas. Its scope and its significance can be appreciated only after it has been carefully studied.[8]

The *Texas Medical Journal,* commenting on the report, had this to say:

> The Committee (Dr. Cupples, Chairman) have received letters of warm commendation from the most distinguished medical men of Europe and America. Amongst the lights who have complimented the work, we may be pardoned for mentioning Bowditch, Gregory, Lawson Tait, S. W. Gross, Senn, Battey, Richardson, Barker, Bodenhamer, Pepper, Ashhurst, Packard, Sinclair, T. G. Thomas, W. L. Lee and others. This great compliment—the endorsement of the whole profession of America and part of Europe, should stir the pride, and stimulate the zeal of our surgeons.[18]

It is not generally known that Dr. Rudolph Matas was reared at Brownsville and after graduation from Tulane practiced there for a while. He is a great letter writer. In 1939, I received a five page letter from him. Here is a pertinent quotation from this letter:

> In 1882, two years after my graduation in medicine, while on my way to Arizona with a sick relative, I stopped at San Antonio as he was seized with all the symptoms of appendicitis (at that time dubbed typhlitis or peri-typhlitis). I had to stop at Santa Rosa Infirmary where I first met Dr. Cupples, who took charge of the patient. Under opium, hot fomentations, starvation diet and absolute rest the patient improved, and recovered within a week without apparent suppuration. As there was no pus there was no operation. Curiously enough the patient lived more than forty years after without a recurrence, dying of what we now would call coronary disease.
>
> While the patient was convalescing, Dr. Cupples, who was already white bearded as you depict him in your book, was very kind and gracious to me. He took me on several occasions to see his patients and I witnessed at least one operation,—a lateral perineal lithotomy—which he performed with great ease, single-handed, with the patient on the edge of the bed in a Mexican *jacal,* under chloroform anesthesia administered by his driver. The patient's legs were held up in the classical position by two neighbors. Almost in the twinkling of an eye he penetrated the bladder and removed a relatively small phosphatic stone. There was little bleeding and the wound was dressed with lime and carbolated oil, and covered with a clean towel held in place with a T binder. Though I was quite familiar with the quickness with which my old teachers, Drs. T. G. Richardson, Sam Logan, Choppin, Schuppert and others operated, I was amazed at the simplicity of the procedure, and the ease with which everything was done in the seemingly primitive surroundings. Cupples, who had probably been a student of Syme in Edinburgh, was like all the surgeons of his day who had learned their surgery before anesthesia and were compelled by necessity to be quick operators, and they tried their best to live up to the traditional formula: *Tuto, Cito et Jucunde* [safely, swiftly and pleasantly], which they had inherited from the itinerant stone cutters of the 17th. and 18th. centuries.*

OBLIGATIONS AND REWARDS

Too often too much publicity and too much praise are given to the leaders of the medical profession, and the man in the ranks is more or less forgotten. The references I have used so far are chiefly to men of distinction. I want to pay tribute to an obscure doctor of Victoria, Texas, Sherman Goodwin by name. Dr. Goodwin kept a journal and to this journal he confided the innermost thoughts of his heart, not dreaming that they would ever find their way to the printed page. In summarizing the obligations and rewards of the physician, he had this to say:

> In time he [the physician] must rise up to enlistment against powers of evil, the defeating forces which make men go slowly, stumble, think unsurely, stop their thinking, lie down dead. Then we join the powers that cleanse and build; and though man cannot here be perfectly cleansed or his building last beyond his season, it is something to have labored for the betterment of life.
>
> Finally, through the very pursuit of science, the doctor comes into the service of God. In every place where his step is uncertain and his way darkened, he must be with God or there is no going.[15]

Texas doctors are the recipient of all that is good and wholesome in the surgery of early and modern Texas. Now our state, so replete in courage and character, needs us as citizens and as surgeons. As conservators of the surgical heritage of the past, we should give her all we have—our energies and our capabilities; our knowledge and our talents; our hands and our hearts.

It may well be that Texas might become one of last outposts of the culture, the ideals, and the liberty which we have come to treasure so deeply. Invasion is one of the ways to compromise, control, or conquer a nation or an organization. The medical profession of Texas and the United States is being invaded by a horde of doctors whose medical education is suspect, to say the least, and whose ideas of ethics and morality are completely foreign to our own. At a time like this when standards of conduct are tumbling and men are losing their way, when evil in high places is distressingly rampant, medical organizations must stand fast.

Finally and especially for young doctors, let me quote this admonition from the "Talmud" which is reminiscent of the first aphorism of Hippocrates:

> The day is short, and the work is great,—the reward is also great and the master presses. It is not incumbent on thee to finish the work, but thou must not therefore cease from it.[10]

**Used with permission of Dr. Matas.*

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Easter Seals Mean Rehabilitation

Greater service to crippled children and adults than ever before in its 35 year history marked the strides made by the National Society for Crippled Children and Adults (Easter Seal Society) in 1956.

In the annual report, Dean W. Roberts, executive director, points out that 119,547 crippled children and 25,083 handicapped adults received direct service by the society through its 1,655 affiliates in all states and territories.

Since 1953, Easter Seal staffs have increased 30 per cent to keep up with the increase in case loads. Nearly 1,100 facilities and services, an increase of 10 per cent for the year, represented progress toward the rehabilitation of the nation's crippled. In Texas, new treatment centers have been added in Fort Worth, Lufkin, Midland, Abilene, and Odessa.

Scholarships representing $37,523 were awarded by state societies during 1956 for the specialized training of doctors, therapists, teachers, and social workers.

In addition, the Easter Seal Society helps with job placement of the handicapped, preschool centers, residential and day camps, assistance to public schools, transportation of crippled children, swimming and recreational programs, parent education services, equipment loan pools, speech and special summer therapy services, social service, and vocational guidance and counseling services.

CASE REPORTS

Traumatic Subcutaneous Rupture of the Stomach

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Sweetwater, Texas

THE FIRST INSTANCE of subcutaneous rupture of the stomach reported in the medical literature was included in Guy's Hospital *Reports* in 1858. A 9 year old girl was run over by a wagon wheel, and there were no external signs of abdominal injury. She was not operated upon and died in nine hours. Autopsy showed an associated tear in the liver.

Dr. Robert Franken practices general surgery in San Angelo. His co-author is a general practitioner in Sweetwater.

The death rate for traumatic subcutaneous rupture of the stomach is nearly 100 per cent when surgery is delayed more than 48 hours. In this case, the patient recovered even though more than 72 hours elapsed between the time of the injury and the time of surgical repair.

Since that time there have been approximately 60 cases reported in the world medical literature. The case presented in this paper offers several unusual characteristics, not the least of which is the fact that the patient survived. By definition, traumatic subcutaneous rupture of the stomach excludes cases

which are associated with such injuries as gunshot or stab wounds or associated gastric disease such as ulcer or carcinoma. Spontaneous rupture, that is, the case associated with acute dilatation or the ingestion of huge meals or large amounts of bicarbonate of soda but without injury, is also excluded.

Wolf[8] in 1936 presented what is perhaps the classical paper on this subject; more recently, other authors have contributed to the literature.[1,2,3,4,5,6,7]

Fatality rates in this condition are extremely high. The lowest uncorrected figure available is 44.4 per cent for operative cases as given by Wolf. The rate, of course, rises sharply with delay of operation and is almost 100 per cent after 48 hours. Diagnosis may be extremely difficult. Symptoms may be minimal at first with no external evidence of abdominal injury and apparently none of those classical symptoms one associates with a perforated gastric ulcer. Furthermore, roentgen-ray findings of air under the diaphragm have been notoriously absent in the cases reported. Another factor which may explain the extremely low rate of correct diagnoses in subcutaneous rupture of the stomach is the fact that frequently it is associated with relatively trivial external injury which, in some instances, is in no way associated with the abdominal wall in general or the stomach in particular. Therefore the attending physician frequently has no overt evidence of intraabdominal injury and may overlook this situation completely until symptoms have progressed to a disastrous state. Following is a report of a case in which the patient lived even though surgery was delayed for more than 72 hours.

CASE REPORT

CASE 1.—An 11 year old boy fell about 6 feet through a hole in the roof of a chicken house and landed on his feet. Before the accident he had eaten a large meal. Shortly after the injury, he complained of fairly intense pain in the abdomen and began to vomit coffee ground material. His symptoms rapidly became worse, and he was admitted to the hospital. At this time there was no abdominal distention, peristaltic sounds were audible, and the pulse was 120. The patient was perspiring freely, and he appeared to be in intense pain. He was given a narcotic and intravenous fluids were started. Gastric suction was not introduced. Roentgenograms of the abdomen did not reveal free air in the opinion of the attending physician, but when viewed later, there was some evidence of free air in the peritoneal cavity.

The patient rapidly became worse, and blood transfusions were given. During this period the patient vomited rather copious amounts of coffee ground material, but no free bright blood. The physician requested consultation, and a diagnosis of ruptured viscus was obtained. Although the patient was in poor condition, it was apparent that surgical intervention was imperative. He was taken to the operating room approximately 72 hours after admission, and the abdomen was opened by a left subcostal incision with an extension along the right costal margin. A massive peritonitis was encountered in the abdomen with a large amount of free fluid consisting of some food material and other bile-stained liquids in the amount of approximately 750 cc. This was removed by suction, and after considerable difficulty the stomach was exposed. There was a large rip in the lesser curvature extending from a point approximately at the antrum downward across the pylorus into the upper portion of the duodenum, and from this there was pouring much dark bile-stained material.

There was an area of tremendous reaction surrounding the rent and simple closure was impossible. This area of reaction was such that the gastric substance was friable and would not hold suture for a distance of approximately 3 cm. on all sides of the tear. For this reason, no attempt was made to close the rip itself, but a patch of omentum was placed over it and snugged down with interrupted sutures of silk after the manner of Graham Steele. It was not thought that this would be an adequate closure, and a large Penrose drain was placed down to the operative area and fastened to the anterior abdominal wall in such a manner as to produce a gastric fistula. The patient received about 3 pints of blood during this operation and was returned from surgery in fairly good condition. His course after operation was uneventful until the third postoperative day when he began to vomit blood. He was operated upon again, this time through a right rectus incision which cross-cut the original incision at approximately the site through which the drain had been placed. The bleeding was controlled, and again an effort was made to close the tear in the stomach, which had partially opened during the bleeding episode. Following this procedure, the patient went rapidly downhill; and since he was unable to take any food or fluid by mouth, his feeding had to be entirely parenteral.

On May 1, 15 days after the original injury, the patient was transferred to the Shannon West Texas Memorial Hospital in San Angelo. A polyethylene tube was inserted through the femoral vein into the inferior vena cava, and intravenous feedings were started. From this point on, fluid and electrolyte balance were carefully controlled by laboratory procedures, although the original electrolyte and nutritional deficit was of such nature as to make complete correction a practical impossibility. Clinical findings on admission were as follows: red cell count, 4,120,000 per cubic millimeter; hemoglobin, 13.6 Gm. per 100 cc.; hematocrit level, 43 volumes per cent; white blood cell count, 17,550 per cubic millimeter with moderate left shift; nonprotein nitrogen, 45 mg. per 100 cc.; carbon dioxide combining power, 49 volumes per cent or 22.05 mg. per liter; chlorides, 100 milliequivalents per liter; total protein, 4.3 Gm. per 100 cc.; albumin, 2.55 Gm. per 100 cc.; globulin, 1.75 Gm. per 100 cc. with albumin-globulin ratio of 1.5:1. Chemical examination of the fluid from the fistulous tract revealed a chloride determination of 355 mg. per 100 cc. with a pH of 6.4 and an absence of bicarbonate indicating that there was no concomitant pancreatic drainage.

Urinary output remained fairly good, but despite efforts to prevent an overload, considerable edema did appear. Treatment was aimed at getting the patient in condition for a definitive surgical procedure which ultimately would permit alimentation. One of the most important deterrents to surgery at this point was the gross infection of the abdominal wall and a large open draining fistula in the right upper abdominal quadrant. Gastric suction was maintained continuously. Sump drainage in the fistula resulted in its partial closure, and particular attention to the abdominal wall brought about its gradual improvement.

One month from date of injury, the patient was taken to surgery for the third time. Under general anesthesia a left pararectus incision was made, extending from the costo-

chondral junction of the eighth rib downward to the level of the umbilicus. The abdomen was opened, and approximately 2,500 cc. of dark bile stained fluid was evacuated from the left peritoneal gutter. The entire abdomen was a mass of adhesions, particularly dense and vascular in the upper abdominal area. The stomach was plastered to the under surface of the liver, and the entire small intestine was involved in a great mass of fairly fragile avascular adhesions. There was no evidence, however, of obstruction. Freeing the stomach from the undersurface of the liver was accomplished with considerable bleeding but without tearing the organ itself. The greater and lesser curvatures of the stomach were mobilized and cleaned up. The left gastric artery was doubly ligated and divided, and the stomach was resected approximately one-third of the distance from the esophagogastric junction to the pylorus. A large gastrocutaneous fistula extending from the distal gastric remnant to the skin had an opening in its side which was spilling bile and gastric juices into the peritoneal cavity. This fistulous tract was completely excised.

A Hofmeister anterior gastrojejunostomy was now constructed with a fairly short loop, the anastomosis being effected approximately 15 cm. distal to the ligament of Treitz. Management of the distal remnant now presented a problem. Because of the tremendous mass of adhesions and the infection secondary to the open fistula, it did not seem advisable to attempt to remove the remnant; the possibility of damage to the biliary system through an attempt at removal appeared to be very great. The remnant was opened, however, and it was seen that the pylorus would admit a finger, thus showing that obstruction at that point did not exist. Removal of the mucosa of the distal remnant also was considered, but the fact that this is a very bloody procedure and the necessity for terminating the operation as soon as possible indicated that this should not be done. It was realized, of course, that in leaving the antral mucosa under these circumstances, the patient was set up nicely for a marginal ulcer, but this appeared, in the judgment of the surgeon, a matter of less importance than immediate survival of the patient. Therefore, the distal remnant was turned in with interrupted cotton sutures. The turn-in was of such extent as to obliterate completely the previous gastric fistula. All bleeding now was controlled. Drains were placed in the operative area, and the abdomen was closed with through-and-through wire. Dry sterile dressing was applied, and the patient was returned to his room in fairly good condition.

The postoperative course was relatively uneventful. The patient was fed through an Einhorn tube, which had been threaded down at the time of operation, beginning on the second postoperative day. At first he complained of nausea and pain when these feedings were given, but this gradually improved. All parenteral feedings were discontinued after the third postoperative day, and by the fourth day the patient was taking semisolid foods by mouth. The Einhorn tube was removed at this time, and the patient was allowed to sit up. His progress thereafter was rapid, and on May 26, 10 days postoperatively, he was returned to his home town by ambulance for convalescence in the hospital there.

One of the most interesting aspects of this case is that the patient had classical rickets to begin with and certain lesions present on both shins indicating avitaminosis of long standing. This, of course, was related to the fact that the patient always has had extremely poor eating habits although he comes from a moderately well-off middle class family, all the rest of whom are healthy. His avitaminosis is directly related to the fact that he always has eaten only what he wanted to eat. Among his particular favorites were such things as Vienna sausage, candies, and starches of all sorts. He cared little for meats and vegetables and never, unless forced to do so, would eat any fresh vegetables or fruits. These eating habits presented a considerable problem after the child was again able to eat following his surgery. The relationship of the avitaminosis and the fact that he had a ruptured stomach from such a comparatively trivial injury is a matter of considerable interest from a speculative standpoint.

SUMMARY AND CONCLUSIONS

A case of traumatic subcutaneous rupture of the stomach has been presented. It appears that this is the first reported case of survival in which an interval of more than 72 hours elapsed between time of injury and surgical intervention.

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Sears-Roebuck Grant Applications Due

The Sears-Roebuck Foundation announces that applications for financial assistance to physicians desiring to enter private practice are currently being processed for the first half of 1957. Deadline for receiving applications is April 1, with final determination on who will receive assistance no later than June 15. Sole criteria for loan evaluation are medical need of the community and financial need of the physician.

Applications may be obtained from county or state medical societies, the American Medical Association's Council on Medical Service, or the Sears-Roebuck Foundation, 3333 West Arthington, Chicago.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Dallas, April 27-May 1, 1957. Dr. Milford O. Rouse, Dallas, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, New York, June 3-7, 1957. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

MARCH

American Academy of General Practice, St. Louis, March 25-28, 1957. Dr. J. S. De Tar, Milan, Mich., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American College of Allergists, Chicago, March 20-22, 1957. Dr. Ethan Allen Brown, Boston, Pres.; Dr. Giles A. Koelsche, Mayo Clinic, Rochester, Minn., Secy.

Texas Society for Mental Health, Dallas, March 7-9, 1957. Dr. Carmen Miller, Dallas, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Third District Society, Lubbock, March 30, 1957. Dr. A. G. Barsh, Lubbock, Pres.; Dr. William Klingensmith, 708 Monroe St., Amarillo, Secy.

Thirteenth District Society, Fort Worth, March 13, 1957. Dr. R. L. Nelson, Wichita Falls, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society, Marshall, March 3, 1957. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Dallas Southern Clinical Society, March 18-20, 1957. Dr. Howard C. Coggeshall, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

New Orleans Graduate Medical Assembly, March 11-14, 1957. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 626 Maison Blanche Bldg., New Orleans 16, Secy.

APRIL

American Academy of Obstetricians and Gynecologists, Los Angeles, April, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American College of Physicians, Boston, April 8-12, 1957. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American Dermatological Association, Belleair, Fla., April 13-17, 1957. Dr. Carroll S. Wright, Philadelphia, Pres.; Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.

American Proctologic Society, New Orleans, April 24-27. Dr. Rufus C. Alley, Lexington, Ky., Pres.; Dr. Karl Zimmerman, 3500 Fifth Ave., Pittsburgh 13, Secy.

Association of American Physicians and Surgeons, Delegates and Assembly, Miami Beach, Fla., April 25-27, 1957. Dr. Charles W. Pavey, Columbus, Ohio, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

Southwestern Society of Nuclear Medicine, Houston, April, 1957. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Wichita, Kan., April 15-17, 1957. Dr. John V. Goode, Dallas, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Texas Air-Medics Association, Dallas, April 28-29, 1957. Dr. W. A. Ostendorf, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Chapter, American College of Chest Physicians, Dallas, April 28, 1957. Dr. Walter C. Brown, Corpus Christi, Pres.; Dr. L. M. Shefts, 510 Moore Bldg., San Antonio, Secy.

Texas Chapter, American Association of Public Health Physicians, Dallas, April 28, 1957. Dr. W. V. Bradshaw, Jr., Fort Worth, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Dermatological Society, Dallas, April 28-29, 1957. Dr. Thomas L. Shields, Fort Worth, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association, Dallas, April 28, 1957. Dr. Edwin L. Rippy, Pres.; Dr. Richard E. Nitschke, 1702 Nix Professional Bldg., San Antonio, Secy.

Texas Geriatrics Society, Dallas, April 30, 1957. Dr. Wendell D. Gingrich, Galveston, Pres.; Dr. J. O. S. Holt, Jr., 3707 Gaston Ave., Dallas, Secy.

Texas Heart Association, Dallas, April 28, 1957. Dr. D. D. Warren, Waco, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Industrial Medical Association, Dallas, April 30, 1957. Dr. V. C. Baird, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neuropsychiatric Association, Dallas, April 28, 1957. Dr. John L. Otto, Galveston, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, Dallas, April 30, 1957. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Dallas, April 29, 1957. Dr. John J. Hinchey, San Antonio, Pres.; Dr. Margaret Watkins, 3629 Fairmount, Dallas, Secy.

Texas Society of Anesthesiologists, Dallas, April 28, 1957. Dr. Charles R. Allen, Galveston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Dallas, April 28, 1957. Dr. John McGivney, Galveston, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Plastic Surgeons, April 27, 1957. Dr. Thomas D. Cronin, Houston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, Dallas, April 1-2, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Dallas, April 28, 1957. Dr. Russell Holt, El Paso, Acting Pres.;Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.

Texas Tuberculosis Association, Fort Worth, April 4-6, 1957. Dr. Howard T. Barkley, Houston, Pres.; Mrs. J. V. Cooper, Waxahachie, Secy.

United States-Mexico Border Public Health Association, San Antonio, April 9-12, 1957. Dr. Guillermo Soberanes, Hermosillo, Sonora, Mexico, Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

Seventh District Society, Austin, April 7, 1957. Dr. Leslie C. Colwell, Austin, Pres.; Dr. Robert N. Snider, 2410 Rio Grande, Austin, Secy.

Ninth District Society, Navasota, April 3, 1957. Dr. C. Marius Hansen, Navasota, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, 2, Secy.

State Tumor Conference, Wichita Falls, April 3, 1957. Mrs. Chester Robinsin, Wichita County Medical Society Tumor Clinic, Wichita Falls, Secy.

Texas State Board of Examiners in Basic Sciences, next examination, Austin, Galveston, and Houston, April 12-13. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

National and Regional

American Academy of Allergy. Dr. Carl E. Arbesman, Buffalo, N. Y., Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Detroit, Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Thoracic Surgery, Chicago, May 4-7, 1957. Dr. Cameron Haight, Ann Arbor, Mich., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Hot Springs, Va., May 1-3, 1957. Dr. Archie L. Dean, New York, Pres.; Dr. John A. Taylor, 2 E. 54th St., New York 22, Secy.

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Chest Physicians, New York, May 29-June 2, 1957. Dr. Herman J. Moersch, Rochester, Minn., Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology, Boston, Oct. 21-26, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Radiology. Dr. Wilbur Bailey, Los Angeles, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Secy.

American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Congress on Obstetrics and Gynecology. Dr. R. Gordon Douglas, 116 S. Michigan Ave., Chicago 3, Chm.

American Gastro-Enterological Association, Colorado Springs, May 17-18, 1957. Dr. Sam A. Wilkinson, Jr., Boston, Pres.; Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secy.

American Gynecological Society, Hot Springs, Va., May 27-29, 1957. Dr. Norman F. Miller, Ann Arbor, Mich., Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Heart Association, Chicago, Oct. 25-28, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 17-19, 1957. Dr. H. Houston Merritt, New York 32, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, Hot Springs, Va., May 30-June 1, 1957. Dr. Frederick C. Cordes, San Francisco, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Carmel, Calif., June 17-19, 1957. Dr. Daniel C. Darrow, Mission, Kan., Pres.; Dr. A. C. McGuinness, 1427 I St., N.W., Washington 5, D. C., Secy.

American Psychiatric Association, Chicago, May 13-17, 1957. Dr. Francis J. Braceland, Hartford 2, Conn., Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1789 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, Chicago, May 8-10, 1957. Dr. Loyal Davis, Chicago, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association, Pittsburgh, May 6-9, 1957. Dr. George C. Pratber, Brookline, Mass., Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Kansas City, May 5-10, 1957. Dr. Howard W. Bosworth, Los Angeles, Pres.; Mrs. Morrell DeReign, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum, Fort Worth, May 5-7, 1957. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 20-21, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.

Southwestern Medical Association, El Paso, Oct. 9-11, 1957. Dr. Celso Stapp, El Paso, Pres.; Dr. Russell L. Deter, 1501 Arizona St., El Paso, Secy.

Tri-State Medical Assembly, Shreveport, September, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Brady, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 308 W. 15th, Austin, Executive Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Association of Blood Banks, New Orleans, 1957. Dr. C. D. Fitzwilliams, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 1609 Colorado, Austin, Executive Director.

Texas Hospital Association, Houston, May 14-16, 1957. Mr. H. M. Cardwell, Lufkin, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murpby, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. J. R. Riley, Corpus Christi, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Dallas, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.

Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.

Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.

Second District Society, Big Spring, 1957. Dr. Clyde Thomas, Jr., Big Spring, Pres.; Dr. Nell W. Sanders, P. O. Box 191, Big Spring, Secy.

Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 5-6, 1957. Dr. James C. Sharp, Corpus Christi, Pres.; Dr. Winston E. Riley, 2400 Morgan, Corpus Christi, Secy.

Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.

Eleventh District Society, Jacksonville, Spring, 1957. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.

Twelfth District Society, July 9, 1957. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. John D. Gleckler, 211 N. Fannin, Denison, Chm.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 15-17, 1957. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

Board Examinations

Texas State Board of Medical Examiners, Fort Worth, June 24-26, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

MEDICOLEGAL NOTES

Doctors May Be Liable For 'Guaranteed' Services

Almost all Texas physicians are aware that the law does not require a physician to be a warrantor or guarantor of his services to the extent that treatment must cure or at least improve an existing condition. A physician in Texas, by taking charge of a case, impliedly represents or warrants that he possesses and will exercise that reasonable or average degree of learning and skill which ordinarily is possessed and exercised by physicians of ordinary and average learning.*

The foregoing statement sets forth in a general way what obligations arise when a physician accepts a case. It is with the few cases in which this would not apply that this article is concerned.

There is ample authority that a physician may enter into a special contract with the patient or with those acting for a patient whereby the physician imposes upon himself a greater or lesser obligation than the law itself imposes upon him.

To demonstrate a situation of this sort there is a fairly recent New York Case, Robins v. Finestone,† in which the patient's complaint alleged that he employed the defendant physician, for a compensation not to exceed $150, to operate to remove a growth. The operation was to be performed by a procedure which would not involve entry through the abdominal wall by incision. The physician promised that the patient would be cured in one or two days and could then leave the hospital and resume his work. The complaint further alleged that the physician attempted, in an unskilled and unworkman-like manner, to perform the operation by fulguration, and that he twice punctured one of the patient's organs. A major operation was necessitated which included the opening of the abdominal wall by incision. The patient was hospitalized for approximately a month, was compelled to spend large sums of money for medical and surgical treatment, and was prevented from engaging in gainful employment for a considerable period of time.

The complaint by the patient asked for damages for the physician's alleged breach of contract. At the trial court level, the court ruled this was a malpractice case and therefore was barred by the statute of limitations, which was two years in New York, as to malpractice. (An action for breach of contract would not have been barred, as the statute of limitations as to breach of contract is longer.)

**This aspect will be more fully discussed at a later date.*
†New York Court of Appeals, 5 Negl. Cases (2d) 16.

The patient appealed the case, and New York's highest court reversed the trial court holding for the physician. The court, in its opinion, stated that a doctor and his patient are at liberty to contract for a particular result, and, if that result is not attained, a cause of action for breach of contract results which is entirely separate from an action for malpractice. The court further stated that although it may be unusual for a physician to enter into a special contract to cure rather than to undertake only to render his best judgment and skill, there are occasions when such contracts are made.

The effect of the holding in this case is that a special contract may be entered into between a physician and a patient whereby a specified result is promised, and if such result is not attained, then quite likely the patient can recover damages for the resulting breach of contract. The law itself is not changed to the extent that the physician becomes a warrantor for the services he renders, but the physician, by a special contract, as is set forth in the case cited, can increase his obligation to the patient to reach a certain result.

The question now arises as to whether the courts in Texas likely would reach the same result. The question of whether a physician in Texas is a warrantor of his treatment would be answered in much the same way as it is in New York. In the case of Bowles v. Bourdon,‡ the court stated that a physician's legal liability is measured by the fact that he merely engages that he has the reasonable degree of learning and skill which is possessed by others of his profession in the same locality or by the average physician under the same or similar circumstances, and that he will exercise that skill and learning with reasonable care and diligence.

As to whether or not this obligation can be increased by a special contract with the patient can be answered best by reference to several cases in Texas which have dealt with this problem to some extent.

In the case of Levine v. Carrell,§ the patient sued on the basis of both malpractice and breach of contract. As to the question raised in regard to the breach of contract, the patient alleged that the physician agreed that if a certain procedure was performed it would result in an improvement of a condition which was present. The trial court directed a verdict for the physician, and on appeal, this was reversed, and the appellate court in its opinion made this statement:

> This evidence, in our opinion, clearly raised an *issue as to an express agreement on the part of Dr. . . .* that the operation would improve the condition of appellant's arm, and the court therefore erred in instructing a verdict. (Emphasis added.)

Finally, in the case of Helms v. Day,‖ the question possibly is dealt with most directly by the courts. In this case, the physician sued to collect a note executed by the patient in payment of the treatment given by the physician. The patient in defense of this suit alleged that the physician had not achieved the result he had promised and thus the consideration for the note sued upon had failed because the physician had breached his contract. In the trial court, judgment was rendered for the physician, but on appeal this was reversed and the court made the following statements in its opinion:

> It is also the law that a doctor may contract with a patient by an express agreement to either cure or not charge and if so he is bound by the general rules pertaining to the laws of contract. (Lakeside Sanitarium v. Dickens.¶)

‡213 S.W. (2d) 713, affirmed 219 S.W. (2d) 779.
§68 S.W. (2d) 259.
‖215 S.W. (2d) 356.
¶259 S.W. 1110.

In the absence of a special contract to either cure or not charge for services, it is a rule of law that a doctor never insures results but simply engages that he possesses a reasonable degree of skill, such as ordinarily possessed by a profession generally, and to exercise that skill with reasonable care and diligence, and again to exercise his best judgment, and while so performing he is not responsible for his mistakes of judgment. Of course such general rule may be varied by special circumstances or agreements. (Graham v. Gautier.**)

The conclusion that can be drawn from these cases is that the law in Texas does not make the physician a warrantor or guarantor to effect a cure or an improvement in the patient he is treating, but the physician may become liable for damages for breach of contract if he expressly agrees with the patient that he will achieve a certain result, and then fails to achieve that result. As a consequence, I believe that from the legal standpoint, it is unwise for a physician to promise absolutely a certain result because as a consequence such physician may be sued later for breaching his contract if he fails to achieve such promised result.

—PHILIP R. OVERTON, LL.B., Austin.

Developments in State Legislation

A revised Mental Health Code incorporating the waiver of trial by jury authorized last fall by approval of a constitutional amendment, a bill to license psychologists, a measure that might lead to a medical school in San Antonio, and bills providing for an increase in public assistance funds to be paid by the state and the federal government are among the bills currently in the Legislature. These and a variety of other measures of medical interest were considered by the Council on Medical Jurisprudence of the Texas Medical Association at its most recent meeting, February 17 in Austin.

Following is a brief description of each bill and the action taken by the council:

H. B. 6 and S. B. 193.—This bill is better known as the Texas Mental Health Code. The motivation behind this code is to provide humane care and treatment for the mentally ill and to facilitate their hospitalization with the least possible trouble, expense, and embarrassment to themselves and their families. It attempts to eliminate as far as possible the ill effect on the patient of public trial and criminal-like procedures, but at the same time protecting the rights and liberty of the individual. Included in the bill are the following items:

1. General provisions:
   a. States that admission is not affected by certain conditions (that is, epilepsy, senility) if in addition to mental illness.
   b. Provides for the information to be furnished in the certificate of medical examination for mental illness which is signed by the examining physician.
   c. Allows reasonable compensation for physicians appointed under the code.
2. Voluntary hospitalization—initial period of not less than 10 days.
   a. Provides for a right to release upon notice.
3. Involuntary hospitalization:
   a. Permits emergency admission procedure by health or peace officer.
   b. Provides detention for only a certain length of time —96 hours.
   c. Provides for an examination to be given in a certain length of time.
   d. Offers means for longer detention if such is necessary.
4. Temporary hospitalization for observation and/or treatment:
   a. Requires examination by two physicians. One shall be a psychiatrist if one is available.
5. Indefinite commitment:
   a. Requires certificate of medical examination for mental illness.
   b. Permits waiver of trial by jury.
6. Orders, transportation, protective custody:
   a. Provides for designation of hospital.
   b. Indicates when commitment to a private mental hospital is permissible.
   c. Indicates when commitment to an agency of the United States is permissible.
   d. Provides for the conditions of detention in protective custody of mental patients. Limits time to be held in nonmedical facility.
7. General hospitalization provisions:
   a. Provides for transfer from one state mental hospital to another.
   b. Provides for transfer to a private mental hospital.
   c. Indicates effect of discharge.
   d. States rights of patients.
   e. Gives limitations on disclosure of information.
8. Private mental hospitals—must be licensed.
   a. Indicates they must have a physician in charge who is certified by the American Board of Psychiatry and Neurology or who has had at least three years' experience as a physician in psychiatry in a mental hospital.

The Council on Medical Jurisprudence reiterated its approval of this legislation.

H. B. 17.—This bill provides for the certification of psychologists. In its original form, this bill merely provided for the qualifications necessary for certification, but did not define what was included in or meant by the practice of psychology. Amendments in committee have limited the practice of psychology to the extent that it cannot be in violation of the Medical Practice Act, and also that such certification does not allow the psychologists to practice medicine.

No action was taken on this bill at the council's latest meeting as it was opposed by the council on January 26 in its then form and was referred to the Committee on Mental Health.

H. B. 61.—This bill provides for the establishment of a medical school in Bexar County. It is necessary that the Commission on Higher Education study the need of another medical school and the location of such school in Bexar County before any definite action can or will be taken by the state.

At its last meeting, the council took no action on this bill because it previously had been discussed and approved by the council as well as by the Executive Council.

PUBLIC ASSISTANCE BILLS:

H. B. 21.—This amends the present laws concerning the aged and provides certain changes as to amounts paid old-age pensioners. It raises the minimum amount to be paid under the law to $50.

H. J. R. 2.—The bill sets up certain provisions for needy aged persons who are over the age of 65, for needy blind persons who are over the age of 21, and for needy children who are under the age of 16, and provides that the total amount of money to be expended out of state funds for such assistance shall never exceed $45,000,000 per year. It provides that the Legislature shall have the

**21 Tex. 111.

authority to accept from the federal government financial aid for the assistance of the needy aged, needy blind, and needy children. It provides that the amount expended by the state shall never exceed the amount expended out of federal funds. Representatives of the State Department of Public Welfare are desirous of working with organized medicine in the setting up of this program.

The council referred this bill to the Council on Medical Economics for a thorough and complete study and implementation in cooperation with the State Department of Public Welfare.

H. J. R. 11.—The proposal removes the restriction on the total amount of money which may be expended out of state funds for assistance to the needy aged, needy blind, and needy children. This is a constitutional amendment which would allow H. J. R. 2 to be put into effect.

This was also referred to the Council on Medical Economics as it ties in with the rest of this legislation.

S. J. R. 5.—This bill concerns the allocation and increase of funds payable to the needy aged, needy blind, and needy children. It calls for a constitutional amendment increasing the maximum payment per month for old age assistance to $21 and increasing the total amount of state funds for old age assistance. It provides for assistance to needy aged over the age of 65, needy blind over the age of 21, and needy children under the age of 16. It allows the Legislature to accept financial aid from the federal government for assistance to the needy aged, needy blind, and needy children. It limits the amount of state funds to the amount of federal funds.

This bill was referred to the Council on Medical Economics.

H. B. 78 and S. B. 61.—This measure provides for financial assistance to needy individuals who are at least 18 years of age and not more than 65 who are permanently and totally disabled. It authorizes the Department of Public Welfare to cooperate with the Department of Health, Education, and Welfare or any other federal agency authorized to administer such aid. Permanent and total disability will be established on the basis of a medical report of a physician. The State Department of Public Welfare shall adopt a reasonable fee schedule for examination.

This bill also was referred to the Council on Medical Economics.

H. B. 1 and S. B. 104.—This act provides for the regulation of the practice of ophthalmic dispensing and authorizes the licensing of qualified ophthalmic dispensers. It sets out the qualifications of applicants for license and provides for certain restrictions upon the practice of ophthalmic dispensing. A Board of Examiners is created to determine the qualifications of applicants for licenses.

The council felt that it should be guided by the recommendations of the ophthalmologists. The Texas Ophthalmological Association has endorsed this legislation, and has solicited the support of the medical profession.

H. B. 433 (also H. B. 5, H. B. 12, and H. B. 20).—These are all amendments to our present workmen's compensation laws.

The council felt that these bills should be studied carefully and watched with any action to be taken at a later date.

H. B. 88, H. B. 31, H. B. 193, and S. B. 188.—These are all narcotic bills which for the most part are designed to strengthen our existing laws. H. B. 88 provides for the treatment of narcotic drug addicts in state hospitals.

This bill has been referred to the Committee on Mental Health and as yet no decision has been reached by that committee. As for the remainder of the bills, the council approves them as they are tightening existing laws pertaining to narcotics.

H. J. R. 7.—This bill authorizes the creation of a city-wide hospital district coextensive with the corporate limits of the city of Amarillo.

The council previously had approved this bill but felt the proper parties in Amarillo should be advised as to past experiences and certain deficiencies in such legislation. H. J. R. 7 was reconsidered in light of the fact that Wichita Falls is seeking to be included in this resolution. The council approved this under the same conditions as was the case in regard to Amarillo.

H. J. R. 23 and S. J. R. 11.—The measure provides for the creation of a State Medical Education Board to authorize grants, loans, or scholarships to students desiring to study medicine and agreeing to practice in the rural areas of the state and in Texas State Hospitals and Special Schools.

It was the council's decision to take no action in opposition to or support of this bill, but there was the feeling that this legislation might not be necessary in light of such medical scholarship funds as have been created recently.

H. C. R 22.—This memorializes Congress to propose an amendment to the United States Constitution relative to taxes on incomes, gifts, and inheritances. It provides limitations on taxes so levied and repeals the sixteenth amendment.

This resolution was approved by the council with the suggestion that the legislative committees of the various county medical societies contact their Congressmen and Senators in regard to H. C. R. 22.

H. B. 99 and S. B. 87.—This bill amends certain provisions of the Vocational Nurse Act. It changes the composition of membership of the Board of Vocational Nurse Examiners in that instead of all members eventually being vocational nurses, there will remain on the board a physician, a registered nurse, and a hospital administrator.

The council has reaffirmed its approval of H. B. 99, but in regard to H. B. 445, which extends the time vocational nurses may be licensed without examination who were eligible under the original act but failed to become licensed, the council decided to take no action either in opposition or in support.

H. B. 169 and S. B. 193.—This bill pertains to the establishment of a state mental hospital.

The council approved this bill.

H. B. 194.—The bill provides for regulating the labeling and sale of hazardous substances. It specifically declares it unlawful to sell thallium sulfate or any substances containing thallium salt. This bill is designed to regulate the labeling and sale of hazardous substances which are suitable for or intended for household use.

This bill was approved by the council.

H. B. 259.—This authorizes business records to be reproduced by photostatic or other photographic process and provides for its admissibility in evidence.

No action was taken by the Council.

H. B. 271.—This is a bill amending Rule 39a of Article 4477 so as to provide that a certificate of stillbirth shall be signed by the physician or midwife in attendance.

The council approved the bill conditioned upon the word "attendant" being substituted for "midwife."

H. B. 274.—This bill amends Article 4590c (naturopath law) and repeals 4590d (practice of naturopathy) in its entirety. It eliminates the designation of naturopaths from the Healing Art Identification Act.

No action was taken on this bill by the council. It was felt by the council that a recent Court of Civil Appeals case in effect had declared the naturopathic laws unconstitutional.

H. B. 329.—This is a bill providing a method of financing the operation of the Texas Commission on Alcoholism. Costs are to be borne by such funds as the Legislature may from time to time appropriate.

Action was delayed pending the report of Dr. Francis J. Gerty, Chicago, who had been consulting with Texans on a mental health program.

H. B. 15.—This bill defines the powers and duties of the Texas Commission on Alcoholism and provides for the establishment of a rehabilitation center. It provides for the rehabilitation of alcoholics and makes an appropriation.

The council delayed action until it had had an opportunity to study the report from Dr. Gerty.

H. B. 349.—The bill regulates the sale and manufacture of foods, drugs, and cosmetics. It defines the terms "drug" and "device." It repeals the present civil and penal provisions and substitutes new provisions. This bill is sponsored by the State Department of Health and is for the purpose of doing away with antiquated laws which heretofore the Pure Food and Drug Division of the Health Department has operated under for years, and bringing about conditions whereby the laws can be properly enforced.

The council approved this bill.

H. B. 392.—This bill amends the present chiropractic law. It describes the duties of the Board of Chiropractic Examiners and sets up the same type of procedure as is used by the Board of Medical Examiners. In fact, the wording has been copied almost word for word.

Approval of this bill was given by the council.

H. B. 394.—This bill provides for the payment by the state on a matching basis for hospital care of tuberculous patients in hospitals other than state in case of financial inability of such persons to provide such care.

This bill had been endorsed previously by the council.

H. B. 404.—This bill relates to cruelty to animals, but specifically exempts scientific tests and the like in connection with medical research.

This bill was approved by the council.

S. B. 197.—This bill authorizes the boards of trustees of school districts to require pupils to be vaccinated for poliomyelitis and to exclude pupils who have not been so vaccinated.

The council took no action upon this bill.

S. B. 207.—This bill raises the compensation of the State Board of Examiners in the Basic Sciences.

The council approved this bill.

S. B. 208.—This bill raises the fees to be paid by applicants for a certificate from the State Board of Examiners in the Basic Sciences.

The council approved this bill.

S. B. 239.—This relates to the regulation of the practice of pharmacy. It prescribes the powers and duties of the State Board of Pharmacy. It provides the grounds upon which the board may refuse to issue a license or may revoke, cancel, or suspend one which already has been issued. Any person operating a pharmacy is required to make application to the board and give the name and certificate number of the pharmacist who is to be employed continually by the pharmacy.

This bill was approved by the council.

OUT-OF-STATE MEETINGS

International Congress of Otolaryngology

The sixth International Congress of Otolaryngology is scheduled for Washington, D. C., May 5-10, and those who expect to register are invited to do so now (accompanying their request with $25 to cover the registration fee) to obtain priority in hotel reservations. The scientific program for plenary sessions will include presentations on "Chronic Suppuration of the Temporal Bone" by Drs. Marcus Diamant, Halmstad, Sweden; Luzius Ruedi, Zurich, Switzerland; and Horst Wullstein, Würzburg, Germany; "Collagen Disorders of the Respiratory Tract" by Drs. Hans Selye, Montreal, Canada; Michele Arslan, Padua, Italy; and Leslie Gay, Baltimore; and "Papilloma of the Larynx" by Drs. Jo Ono, Tokyo, Japan, and F. C. W. Capps, London.

Any interested physician may attend. Additional details may be obtained from the General Secretary, 700 N. Michigan Ave., Chicago 11.

Pan American Association of Ophthalmology

The fourth interim congress of the Pan American Association of Ophthalmology will be in New York City April 7-10, and will be a joint session with the National Society for the Prevention of Blindness, Diseases of the ocular fundus, ophthalmic surgery, and therapeutics in present day ophthalmology will be discussed. Dr. Ray K. Daily, Houston; Dr. Louis J. Girard, Houston; and Col. H. W. Rose and Dr. Arnold Swanson, School of Aviation Medicine, Randolph Field, will be among the program participants. Details of the meeting are available from Dr. Frank H. Constantine, 30 West Fifty-Ninth, New York 19.

Industrial Health Conference

The National Industrial Health Conference will be April 20-26 in St. Louis, and will bring together members of five organizations, the Industrial Medical Association, the American Industrial Hygiene Association, the American Association of Industrial Nurses, the American Conference of Governmental Industrial Hygienists, and the American Association of Industrial Dentists. The complete program may be obtained from Dr. E. C. Holmblad, Industrial Medical Association, 28 East Jackson Boulevard, Chicago 4.

International Academy of Proctology

A seminar on practical techniques for office and hospital, with special emphasis on anal and rectal panel presentations, has been planned for the ninth annual convention of the International Academy of Proctology in New York, April 29-May 2. All physicians are welcome to attend the meeting regardless of their affiliation with the academy. There is no attendance fee for the teaching sessions.

Bahamas Medical Conference

General lectures will be given from 9:30 to 11 a. m. and from 5:30 to 7 p. m. during the annual Bahamas Medical Conference in Nassau April 23-30. Also, there will be two evening lectures, hospital meetings, and social gather-

ings. The registration fee is $75, and reservations may be made by writing Robert K. Holiday, British Colonial Hotel, Nassau, Bahamas.

Congress in Ophtholmology ond Otoloryngology

The Gill Memorial Eye, Ear, and Throat Hospital, Roanoke, Va., will hold its thirtieth annual Spring Congress in Ophthalmology and Otolaryngology April 1-6. Ethical practitioners who are members of their county medical societies are eligible to attend, and classes will be limited. Registration will be $80, or $40 for half the session. Clinical lectures, lantern slides, motion pictures, and surgical demonstrations will be used to present recent advances and accepted methods of treatment.

EDUCATION

Postgraduate Courses

Surgery in Acute Trauma, Fort Bliss, April 1-3. Open to civilian as well as military physicians without payment of a fee, this course will include consideration of such subjects as triage, shock state, control of hemorrhage, debridement, management and transportation of wounded, principles of treatment of bone and joint injuries, abdominal and chest injuries, and head injuries. Civilian physicians should write the Commanding Officer, William Beaumont Army Hospital, Fort Bliss; reserve officers not on active duty and desiring to receive credit points for attendance should get in contact with their local Army Reserve office or military district headquarters; military physicians should apply through their commanding officer.

Clinical Hypoxia, New York, April 5-6, May 3-4, June 7-8. Monthly courses are sponsored by the National Resuscitation Society in cooperation with the councils and specialty sections of the American Medical Association. Additional courses are given in southern, midwestern, and western cities. Interested physicians may obtain details from the office of the National Resuscitation Society, 2 East 63rd, New York 21.

James J. and Una Truitt Lectures for 1957, Houston, April 17. Dr. Paul Dudley White, clinical professor of medicine, Harvard University Medical School, Boston, will lecture under sponsorship of the University of Texas Postgraduate School of Medicine with the Houston Heart Association as associate sponsor. No tuition will be charged, and the Texas Academy of General Practice will grant five units of credit. Further information may be had from the Postgraduate School, Texas Medical Center, Houston 25.

Maxillofacial Surgery, Houston, April 22-26. Lectures, seminars, and demonstrations on diagnosis and treatment of fractures, neoplastic diseases, and developmental deformities will provide the subject matter for this course. Dr. Stanley Lane, New York, will be guest essayist; the course will be under the auspices of the University of Texas Dental Branch, and tuition will be $125. Dr. Sumter Arnim, P. O. Box 20068, Houston 25, can provide details.

American College of Physicians, Spring, 1957. The spring series of postgraduate courses sponsored by the American College of Physicians for its members and, when facilities permit, nonmembers has been announced. The series includes the following: "Pathology and Pathological Physiology in Internal Medicine," Cleveland, March 25-29; "Gastroenterology," Boston, April 1-5; "Internal Medicine," Chicago, May 13-17; "Early Detection and Prevention of Disease," Philadelphia, May 20-24; "Internal Medicine," Shreveport, May 20-24; "Cardiology," Mexico, D. F., May 27-31; "Internal Medicine," New York, May 27-31; "Ballistocardiography," Philadelphia, June 10-12. Applications and details are available from the Executive Secretary, American College of Physicians, 4200 Pine Street, Philadelphia 4.

AMEF Makes Progress

Whether doctors are attaining the necessary goal in order to prevent the encroachment of the federal government on medical schools was discussed at the annual meeting of the American Medical Education Foundation in Chicago in January, Dr. A. L. Delaney, Liberty, State Chairman for the AMEF, reports. He pointed out that costs of medical schools increased by approximately $13,000,000 in 1956 and that doctors during that time raised $1,000,000 for AMEF. Most of the physicians at the meeting thought that efforts of doctors to finance the costs of medical education should be in the nature of a catalyst rather than an attempt to pay the entire bill. It was emphasized that professors in medical schools do not contribute to AMEF in the same proportion as do practicing physicians.

Dr. Delaney, representing the Texas Medical Association at the meeting, was selected to act in an advisory capacity on the national committee.

Almost simultaneously with the Chicago meeting, AMEF released figures on its distribution of grants for the year to the country's 83 medical schools. Total funds available were $1,072,727. Each four year school received $6,850 from the foundation; each two year school, half that sum. In addition, each school received all funds especially earmarked for that school. Baylor University College of Medicine received a total of $11,023.33; Southwestern Medical School of the University of Texas, $9,011.18; and University of Texas Medical Branch, $10,239.33.

University of Texas Medical Branch

Dr. Charles T. Stone has resigned as chairman of the Department of Medicine of the University of Texas Medical Branch, Galveston. He will remain at the school in a teaching and research capacity.

Dr. Edward Trautman has been appointed assistant to the Dean of Medicine at the Medical Branch. Dr. Trautman comes from Columbia University and Bellevue Hospital, New York City, where he completed his residency. He received his degree in medicine from the University of Southern California.

Dr. Milton Hejtmancik, Department of Internal Medicine, has been named chief of staff of John Sealy Hospital; *Dr. John Q. McGivney,* vice-chief. *Dr. Melvin Casberg,* vice-president, University of Texas, was principal speaker at the recent meeting.

Visitors to the University of Texas Medical Branch campus recently have included *Dr. Leo A. Bornstein,* plastic surgeon from a government hospital in Israel; *Dr. Eva Schuhardt,* Hamburg, Germany; *Col. Harvey C. Slocum,* chief of the anesthetization and operating section, Walter

Reed Army General Hospital, Washington, D. C.; and *Dr. Bruce E. Walker,* assistant professor of anatomy, McGill University.

Other visitors have been *Dr. H. S. Bennett,* chairman, Department of Anatomy, University of Washington; *Dr. Benjamin Felson,* professor of radiology, University of Cincinnati College of Medicine; and *Dr. William H. Muller, Jr.,* professor and chairman, Department of Surgery, University of Virginia.

Venereal Disease Postgraduate Conference

A three day venereal disease postgraduate conference for physicians will be held at the University of Tennessee College of Medicine, Memphis, April 18-20. Sponsord by the College of Medicine, the United States Public Health Service, and the Tennessee State Department of Health, the course is designed to acquaint practicing physicians and health officers with innovations in diagnosis and treatment of venereal disease. Applications may be sent to Dr. Henry Packer, Department of Preventive Medicine, University of Tennessee College of Medicine, Memphis 3. There is no tuition fee.

National Fund Grants to Texas Education

Grants from the National Fund for Medical Education for 1956 have been announced recently as totaling $3,067,100 for the United States. Grants in Texas included Baylor University College of Medicine, $36,450; Southwestern Medical School of the University of Texas, $40,350; and University of Texas Medical Branch, $53,740.

Runyon Grant Goes for Microscope

The University of Texas Southwestern Medical School received $20,000 from the Damon Runyon Memorial Fund for Cancer Research on March 1, to support its revolutionary new "ultraviolet television flying-spot microscope."

In 1955, the fund allocated $24,750 to the same instrument, which is being used to study basic chemical patterns of living human cancer cells in an effort to learn more about their life processes. It utilizes lightning-fast scanning spots of ultraviolet light.

TEXAS ORGANIZATIONS

Texas Society for Mental Health

Direct services to patients, their families, and the community were emphasized at the conference of the Texas Society for Mental Health in Dallas March 7-9. Information and referral service, volunteer services, social and vocational rehabilitation, service to the families of the mentally ill, community education for mental health, information for public understanding, operation of child guidance clinics, and community care of the mentally ill were topics for workshop meetings. Also, there was a special workshop on pastoral counseling.

Dr. Douglas M. Kelley, professor of criminology at the University of California, Berkeley, was a guest speaker.

TEXAS CHAPTER, AMERICAN PHYSICAL THERAPY ASSOCIATION

Members of the Texas Chapter, American Physical Therapy Association, will meet April 26-28 in the Statler Hilton Hotel, Dallas, during the annual session of the Texas Medical Association. Physicians, occupational therapists, and members of allied medical fields will be welcome to attend the Saturday (April 27) lectures. The program will be as follows:

FRIDAY

8:00-11:00 p. m.—Informal gathering and registration.

SATURDAY

8:30-9:30—Registration.

9:45—Welcome — June Tucker, Chairman, North Texas District.

10:00—The Role of Intermittent Positive Pressure Breathing in Convalescent Poliomyelitis—Dr. Vann S. Taylor and Dr. William F. Miller, Dallas.

12:00—Self Employed Luncheon.

1:30—The Hand; Orthopedic Problems and Treatment — Dr. Lawrence P. Kleuser, Fort Worth, assisted by Jeanne Schenck.

6:30—Cocktail Party.

7:30—Banquet and entertainment.

SUNDAY

9:00—Breakfast and business meeting.

Medical Assistants Form State Unit

The Texas Medical Assistants Association was organized in Dallas, February 23, by representatives of chapters in Dallas, Austin, San Antonio, Sherman, and Schulenberg.

Membership in the organization is open to any person who has been employed for as much as one year as a medical assistant by members of the Texas Medical Association; in hospitals, medical laboratories, or institutions for which the professional staff is composed of members of the Texas Medical Association; or in Veterans Administration or military hospitals.

The expressed purpose of the association is to provide "individual and collective educational advantages by lectures, demonstrations, discussions, instruction and study; and to inspire members to render honest, loyal and more efficient service to their professional employer and to the public which they serve." One provision of the constitution is that any member attempting to affiliate with any union automatically will forfeit her membership in the association. The code of ethics of the Medical Assistant Association states that "the Medical Assistant should be morally, mentally and physically clean; honest in her dealings and loyal to her employer. Her responsibility to her fellows should conform with the honor and dignity expected of a cultured person."

The American Medical Association has approved the activities of the national group, known as the American Association of Medical Assistants, and the Committee on Patient Care of the Texas Medical Association has endorsed the objectives of local and state groups in Texas. The President of the Texas Medical Association has been asked to appoint five physicians as an advisory board for the state group.

West Texas Obstetrical And Gynecological Society

Dr. Jack Pritchard, Dallas, presented papers on "Chorioepithelioma" and "Hypofibrinogenemia in Abruptio Placenta" at the recent meeting in Lubbock of the West Texas Obstetrical and Gynecological Society. Dr. Evelyn Powers, Amarillo, presented a paper on "The Menopausal Hoax."

Officers elected to serve during the coming year are Dr. Joe Cornelison, San Angelo, president; Dr. George E. Peacock, Big Spring, president-elect; Dr. Rex L. Rook, Amarillo, vice-president; and Dr. Tom C. Burditt, Abilene, secretary-treasurer.

Medical Technologists to Meet

The Texas Society of Medical Technologists will hold its silver anniversary convention April 11-13 in Fort Worth. Several physicians will participate in the scientific presentations, and entertainment will include a western dinner and party.

Singleton Surgical Society Elects

Three Texas doctors were elected to offices of the Singleton Surgical Society when that group held its fourth annual scientific meeting in New Orleans January 18-20. They are Dr. Clyde E. Thomas of Big Spring, president; Dr. O. T. Kirksey of Galveston, vice-president; and Dr. Walter B. King of Waco, secretary-treasurer. About 30 charter and active members attended.

OF GENERAL INTEREST

Medical and Occupational Irradiation of Human Beings

Because of the problems in public health created by the development of atomic energy, the United Nations General Assembly established a Scientific Committee on the Effects of Atomic Radiation. The committee recently has issued a statement regarding the responsibilities of the medical profession in the use of x-rays and other ionizing radiation, in which are included the following recommendations:

"The Radiological Profession, through the International Commission on Radiological Protection, has undertaken a valuable and responsible duty in defining maximum permissible limits of exposure for the main radiation hazards [see Commission report, Brit. J. Radiol., supp. 6, Dec. 1954].

"The establishment of these maximum permissible levels for those who are occupationally exposed to radiation depends on the view that there are doses which, in the light of our present knowledge, do not cause detectable somatic injury in the individual irradiated; and on the consideration that the number of individuals concerned is small enough for the genetic effects on the whole population to be negligible. For the gonads, or for irradiation of the whole body, the levels are such as to exclude doses greater than 0.3 rem in any week or 3.0 rem in any 13 weeks, or a sustained irradiation rate greater than 5 rem per year. These values imply that no total dose of over 50 rem will have been received by the gonads by the age of 30, or of over 200 rem by the whole body by the age of 60, in any occupationally exposed person.

"As regards irradiation of the whole population, it is considered prudent to limit the average dose to germinal tissues from artificial sources to the order of magnitude of that received from all natural sources.

"In considering the extent to which the population is irradiated for medical purposes, it is essentially the genetic hazard which is involved although it seems possible that in certain circumstances somatic injury may occur occasionally after low doses of radiation arise. Otherwise, the relevant dose is that indicating the mean gonad irradiation among the population as a whole up to the end of the average reproductive period.

"The extent of such genetic irradiation from diagnostic procedures has been found to be equal to at least 100 per cent of all natural radiation in two countries [Sweden and United States], and that from a third [United Kingdom] equalled at least 22 per cent of this figure. Even before obtaining more exact values for these and other countries, it is clear that the exposure can be substantial in countries with extensive medical facilities, and that it is essential to consider any ways in which this exposure could be reduced without detriment to the existing or developing value of medical radiology.

"The Committee is therefore anxious to obtain the help of radiologists in suggesting through appropriate governmental channels any methods by which this total exposure could be reduced and in estimating the amount of reduction that might be expected from any such methods. In particular it would be valuable to know how much the radiation to the gonads could be reduced

"(a) by improved design or shielding of equipment.

"(b) by fuller training of any individuals using radiographic or fluoroscopic equipment.

"(c) by any local shielding of the gonads that is practicable, especially during abdominal or pelvic examination.

"(d) by the use of techniques involving radiography rather than fluoroscopy when full information can be obtained by this means.

"(e) by improvement of administrative arrangements designed to obviate unnecessary repetition of identical examinations of the same subject.

"(f) by a general study of certain medical conditions such as that of peptic ulcers, to identify the circumstances in which the establishment of a radiological diagnosis has or has not a definite influence upon the treatment or prognosis given."

Baylor Hospital Gets Giant X-Ray Unit

Two million volts of energy soon will be brought to bear against cancer at Baylor University Hospital, Dallas. The purchase of a new x-ray machine, valued at $118,000, has been made possible by a gift from Charles A. Sammons, Reserve Life Insurance Company. This unit is a companion piece of equipment with the theratron cobalt therapy unit, now in operation, which was given by Mr. Sammons in 1955.

AED Establishes Chapter in Houston

Texas Delta Chapter of Alpha Epsilon Delta, national premedical honor society, was established recently at the University of Houston. Charter members included 20 students and four faculty members. Dr. Catherine Cominsky, professor of biology, is the faculty adviser.

Welcome to Big D

"Going to Big D" will be the byword of many Texas doctors and their wives next month, when Dallas welcomes the ninetieth annual session of the Texas Medical Association and the thirty-ninth convention of the Woman's Auxiliary. Aside from the meeting activities, Dallas has much to offer—a clean, sparkling skyline; extensive cultural, entertainment, and recreational facilities; and growing diversified businesses. The largest inland metropolis in the United States, Dallas is a center for oil, agriculture, manufacturing, banking, insurance, and fashion.

Of special interest to physicians and their wives in the development of Dallas is the fact that the city's first mayor was a physician, Dr. Samuel B. Pryor, and the fact that the present Blue Cross had its beginning there. A group of public school teachers persuaded Baylor University Hospital to experiment with a group hospitalization plan, which spread to other cities and to many other states and became known as the Blue Cross plan.

The skyline is an impressive view of the 185 square mile Dallas, which is still growing by leaps and bounds. Metropolitan Dallas has a population of almost 800,000, with 646,000 of the total within the city of Dallas and its four "island" cities—Highland Park, University Park, Cockrell Hill, and Fruitdale.

CULTURE AND ENTERTAINMENT

The largest annual exposition in the nation, the State Fair of Texas has its home in Dallas. The $35,000,000 permanent facilities on the Fair grounds not only are utilized during the two week exposition in the fall, which attracts 2,500,000 people annually, but the Fair grounds also serve as a year round cultural and amusement center. In addition to six large exhibit buildings and the livestock pens and arena, there are such buildings as the Dallas Health Museum, Dallas Art Museum, Museum of Natural History, Texas Hall of State, Fair Park Auditorium, and the Cotton Bowl. The Fair's midway is open in the spring and summer and has two big Ferris wheels, a charming old merry-go-round, a $100,000 roller coaster, and 33 other rides.

The State Fair of Texas is only one aspect of Dallas' entertainment facilities, for Dallas has events ranging from the State Fair musicals—a 12 week summer series of light opera and musical comedy that equals Broadway in caliber, scope, and stars—and the Metropolitan Opera to rodeos, road shows, and night clubs. It is the home of Margo Jones' Theatre '57, a nationally famous professional group which presents theater in the round, alternating new scripts never before performed with the classics. The only Cinerama theater in the south or southwest is in Dallas, and in addition there are 62 motion picture theaters including four that show first run domestic pictures, two that show first run foreign films, a theater for Todd-AO productions, and

High light of Dallas' entertainment ond cultural facilities is the State Fair of Texas. The esplanade from the main gates is pictured (top left) os ore some of the Fair grounds' other attractions, the Dollas Health Museum (top right) where o Health Foir sponsored by the Woman's Auxiliory will be staged during the annual session, the Cotton Bowl (lower left), and the Margo Jones Theotre (lower right).

13 drive-in theaters. Ice shows are held at the State Fair Ice Arena. Ballets, famous musicians, and lecturers are included in the annual Civic Music Association and Community Course seasons. The Dallas Symphony Orchestra presents a full, annual season of winter concerts.

To help accommodate the cultural and entertainment features of Big D, the Memorial Auditorium was recently constructed. It has an arena which will seat 10,000 and a separate theater for 1,770 within the building, in addition to 100,000 square feet of exhibit space.

The park systems of Dallas, including University Park and Highland Park, consist of 100 different parks, with a total of more than 6,300 acres of developed recreational facilities. The largest park in the system is White Rock Lake, which covers 2,400 acres. Marsalis Park Zoo, Lake Cliff Park, Bachman Lake, and the State Fair of Texas grounds are other outstanding parks in the recreational system.

Some seven radio stations and two television stations help round out Dallas' amusement program.

DIVERSIFIED BUSINESSES

Although there is not an oil well within sight of Dallas County, Big D is the home of 550 companies which serve the oil industry in all the major midcontinent fields. The city is headquarters for drilling contractors, lease and royalty brokers, and allied interests. Also, the headquarters of Magnolia Petroleum Company (the Magnolia Building's neon "Flying Red Horse" has long been a landmark on the Dallas skyline), the southwestern division of the Sun Oil Company, and the domestic production and pipe line divisions of the Atlantic Refining Company are in Dallas.

Dallas leads all cities of the Southwest in the number and variety of manufacturing plants and distributing facilities available for supplying the needs of the retail merchants and service establishments which look to Dallas as their buying center. Dallas is the nation's leading export cotton market, and the Dallas Cotton Exchange members average handling 2,000,000 bales annually. Dallas has 1,696 manufacturers and 2,804 wholesalers. They produce and distribute everything from foodstuffs, textiles, and apparel to household appliances, electronic equipment, and the heaviest machinery. Wholesale sales in Dallas average two billion dollars a year.

More than 12,000 Dallasites are employed by 700 insurance firms, and there are more insurance company home offices in Dallas than in any other city in the world. Dallas is the biggest banker in the Southwest, with 25 banks that have more than two billion dollars in deposits and resources. No other city in the South approaches Dallas in its capacity to handle large scale loans and financing. Dallas has the two largest banks in the nation south of Philadelphia, with the exception of one in Los Angeles.

Downtown Dallas and the many new and beautiful shopping centers with their fine stores, including the famous Neiman-Marcus, have made Dallas one of the nation's leading fashion centers. Many well dressed women of Mexico and South America make Dallas their shopping center.

The dry, temperate, and healthful climate of Dallas is a stimulus to aviation development as well as to recreation. Good flying weather, concentration of business and buying power, and strategic geographic location have all combined to make Dallas one of the leading aviation centers of the Western Hemisphere. It ranks among the top 10 air traffic centers in the United States and generates more air passengers per capita than any other city in the country except the resort center, Miami. Three municipal airports are in Dallas: Love Field, the center for commercial routes; Red Bird Airport, which handles freight and private flying; and Hensley Field, under long term lease to the Navy. A new terminal is under construction at Love Field, which will provide several pioneering features in convenience and comfort for the traveling public.

Nine major railway lines route more than 120 passenger and freight trains a day in and out of the $5,000,000 Union Terminal, and Dallas is served by three motor bus lines, including two transcontinental systems, and by 56 common carrier motor freight lines. The pride of Dallas' city transportation system is the 19 mile Central Expressway, a 10 lane super highway that stretches through the heart of Dallas and will cost $31,000,000 when it is completed.

EDUCATIONAL AND MEDICAL FACILITIES

In addition to being the home of Southwestern Medical School of the University of Texas, Dallas has Baylor University College of Dentistry, Southern Methodist University, University of Dallas, more than 200 public, parochial, and private schools, and more than 850 churches.

Southwestern Medical School is of particular interest to

Located in the heart of downtown Dallas are the headquarters for the Texas Medical Association (top), the Baker Hotel, large building at the right, and Hotel Adolphus, ornately decorated building at the left. The headquarters for the Woman's Auxiliary (bottom) is the Statler Hilton Hotel. The tall two-shaft building in the center of the top photograph is the Magnolia Petroleum Building.

Among the new medical facilities are Parkland Memorial Hospital (right) and the Basic Science Building of Southwestern Medical School of the University of Texas (left). Physicians are welcome to visit the new medical school building and to see the nearly complete Clinical Science Building.

physicians in the state. It helps make Dallas a research center on diseases and health problems of particular importance to the Southwest. The medical school's facilities are rapidly developing. A new Basic Science Building recently has been completed and is now in full use; the Clinical Science Building is well on its way toward completion and should be in use this coming fall. This will more than double the capacity of the school's permanent physical plant. Southwestern's library, housed in the Basic Science Building, is now in full operation and is developing into an outstanding medical library. Adjacent to the new medical school buildings is the new Parkland Memorial Hospital. The old Parkland building now houses a city-county tuberculosis hospital (Woodlawn).

Baylor, St. Paul, Methodist, Veterans Administration, and the 82 bed hospital on the top floor of the Medical Arts Building are the largest general hospitals in the city, in addition to Parkland. Expansion programs are being planned by all three of the major hospitals in Dallas. Methodist Hospital has recently completed its financial campaign and is in the process of planning its actual construction. Baylor Hospital is beginning its financial campaign now, and St. Paul Hospital is scheduled for a financial campaign next year.

Another leading part of the medical picture is the Children's Medical Center, composed of four hospitals and clinics for the treatment of child diseases. Also, Dallas has the Texas Scottish Rite Hospital for Crippled Children, the Hope Cottage Foundling Home, and the Cerebral Palsy Treatment Center.

The offices of the Dallas County Medical Society in the Medical Arts Building recently have been expanded to include an auditorium for society meetings, and the annual meeting of the Dallas Southern Clinical Society attracts more than 1,000 doctors and is a high spot in medical Dallas. Membership of the Dallas County Medical Society has nearly doubled in ten years. In the last five years, five new medical buildings have been constructed in Dallas, two in the near downtown area and three in the suburban areas. The Medical Arts Building, although the first medical skyscraper in the world, still holds the distinction of being the largest and most professionally modern and complete. In addition to a 500-car parking area in the Medical Arts Building, there is a new 500-car, 14-floor Medical Arts Parking Garage Building nearby.

The Dallas Health Museum, which is one of three such institutions in the United States devoted to health education of the public, will be the scene for a Health Fair sponsored by the Woman's Auxiliary to the Texas Medical Association from April 28 through May 5. Sixty-six exhibits will be on display to the public.

Medically, and otherwise, Dallas has much to offer its visitors. "The convention city" welcomes the doctors of Texas and their wives.

Personals

Dr. Michael E. DeBakey, professor of surgery at Baylor University College of Medicine, Houston, is one of a 10-man board of regents nominated by President Eisenhower to guide the new National Library of Medicine. He is one of three men assigned to four-year terms; all nominees are subject to confirmation by the Senate. A responsibility of the board will be to recommend the site for the new library building. The structure was authorized by Congress, but construction funds were omitted from the Eisenhower budget.

Dr. Edgar J. Poth, Galveston, participated in a surgical, radiological, and pathological symposium in Oklahoma City in February on "Lesions of the Colon." The symposium was under the auspices of the Oklahoma Association of Radiologists, Oklahoma Association of Pathologists, and Oklahoma Chapter, American College of Surgeons.

Dr. Jerry A. B. Stirman, Dallas, was a panelist on acute renal failure at a recent symposium sponsored by State University of New York College of Medicine, Syracuse, and the Veterans Administration hospital there.

Dr. Ben H. Bayer, Houston, has been elected a member of the board of trustees of Phi Lambda Kappa, national medical fraternity.

Dr. Edwin G. Schwarz, Fort Worth, was the recipient of the annual "Gold Headed Cane" award presented by the Tarrant County Medical Society. Approximately 250 attended the award dinner.

Dr. Don W. Chapman, Houston, appeared on a program, "Conquest of Disease," aired over KGUL-TV on January 27. Co-sponsors were the Harris County Medical Society, Harris County Pharmaceutical Society, and Lederle Laboratories.

Dr. James N. Walker, Fort Worth, has been named chief of staff of Lena Pope Home's Infirmary. He succeeds *Dr. L. O. Godley,* who served in that capacity for 26 years.

Mrs. O. J. Wollenman, Jr., Fort Worth, wife of *Dr. O. J. Wollenman,* died February 6 after a week's illness in a local hospital.

Dr. Wallace I. Hess has been named outstanding young man of the year by the Lubbock Junior Chamber of Commerce.

Merton M. Minter, Jr., son of *Dr. and Mrs. Merton M. Minter,* San Antonio, will be married in West Point late this spring to Miss Ann Janice Clark of Lockhart.

Now at home in Corpus Christi are *Dr. and Mrs. Robert Cunningham Wood,* who were married on February 23 in that city. Mrs. Wood, the former Miss Helen Elizabeth Pilter Heaney, is the daughter of *Dr. and Mrs. H. Gordon Heaney* of Corpus Christi.

Miss Patricia Purdie became the bride of *Dr. Thomas Maynard Cloud,* 1948 University of Texas Medical Branch graduate, in rites performed on February 16 in Houston. The couple are at home in Houston.

Daughters were born recently to *Dr. and Mrs. Tom E. Linstrum,* February 1 in Elgin; *Dr. and Mrs. Charles H. Cox, Jr.,* December 6 in Temple; *Dr. and Mrs. Ray Boster,* January 13 in San Angelo; *Dr. and Mrs. Norman E. Halbrooks,* January 17 in Galveston.

Parents of new sons include *Dr. and Mrs. J. S. Boren,* in Houston; *Dr. and Mrs. Roger D. Shoemaker,* in Houston; *Dr. and Mrs. Andries van den Sigtenhorst,* in Waco; *Dr. and Mrs. Robert W. Smith,* August 11 in Dallas; *Dr. Fay Schuchart Wurzbach* and Clarence Wurzbach, February 7 in Castroville; *Dr. and Mrs. Thomas G. Glass, Jr.,* twins, January 9 in San Antonio.

Dr. Gerty Reports On Mental Health

The recommendations of Dr. Francis J. Gerty, professor and head of the Department of Psychiatry at the University of Illinois College of Medicine, Chicago, relative to the establishment of a comprehensive program for the prevention and treatment of mental illness in Texas recently have been announced by the Texas Medical Association's Committee on Mental Health. The committee sponsored Dr. Gerty's appointment as consultant for a three-month analysis of mental health conditions in the state.

Dr. Gerty's recommendations are concerned mainly with the establishment of a working model for the prevention and treatment of mental illness in Texas, on the basis of (1) what is a good principle in a comprehensive approach to the problem of prevention and treatment of mental illness, (2) what has been worked out piecemeal according to good principle in Texas and other places, and (3) what are the special needs of Texas. The recommendations, which were approved by the Committee, follow:

1. A model demonstration mental health program should be established in one section of the state where it could serve an adequate division of the total population of the state. The establishment should be a participative and cooperative effort, deriving support from the whole state, as the aim is to cover the mental health needs of the whole state, segment by segment, since Texas is too large to establish a workable program for the whole state at once. Availability of personnel, facilities, and economy of effort and expenses make the double procedure of establishing a demonstration program and of several supplementation programs almost imperative.

2. The organization and lines of authority for the control of the whole mental health service of the state must be established so that good quality of intensive psychiatric treatment will be received by all patients, whether in the clinic or in the hospital. It is possible that psychiatric direction through all operational levels of the system can be effected by establishing the position of director of mental health under the Board for Texas State Hospitals and Special Schools. The board would set policy, and the director would operate the program with adequate professional assistance in each of his three chief functions of treatment service to patients, training of personnel, and research.

3. The six existing state hospitals and the expanded mental health service should be disencumbered of entanglements with hospitals and institutions which have functions essentially foreign to mental health service; that is, with the possible exception of the schools for the mentally retarded, the other institutions presently under the direction of the board should be placed under other supervision.

4. The construction necessary to establish the program suggested under the first recommendation should be planned and provided for as soon as possible. Proposed construction and rehabilitation should be limited in its extent to the amount necessary to keep the hospital plants in good condition but not on a 10-year plan at this time. Planning new construction for the future should be on the basis of adequate study of locations in connection with population needs and in accordance with a long-term program.

5. Skilled personnel will be essential to carry out any mental health program. The salary scales for all kinds of personnel should be set so that the position of Texas is favorable in this respect when compared with the position of other states, and conditions should attract and keep good personnel.

6. The design of the working model demonstration program shall include within its range every element needed for the prevention and treatment of mental illness with research into methods of treatment of mental illness and with the training of people to serve in the program of treatment. This means that two bases of operation must be established, but under one control and with communication between the bases.

The first base should be a community one, with an outpatient clinic operating on full time, an in-patient service of manageable size (probably around 50 beds), and sufficient laboratory and other facilities to train personnel and to carry out research activities for the whole project. The second base should be a state hospital, preferably of about 500 beds, reasonably accessible to the population which it must serve but at some distance from the clinic base. The operations of the community and its clinic include primarily prevention, treatment, admission procedures for patients needing hospitalization, and rehabilitation after hospitalization. The state hospital functions include reception of patients, establishment of effective relations with the patients' relatives and the community services, classification of patients within the hospital, application of hospital treatment, preparation for return to the community, maintenance of good service for the chronically ill, and a follow-up service of its own and in connection with the community clinic. In both base institutions there should be training of personnel of all types and applied research, as well as strong international linkage and facilities.

The Houston-Galveston area is favored as the location of the first or demonstration project because of the lack of a state hospital within 200 miles of Houston, the active medical society, the numerous practicing psychiatrists, the developed medical center, and the medical school there and in Galveston. An alternative location could be Dallas, but it is generally agreed that the need is greater in the Houston area.

7. If these recommendations are acceptable, a planning and advisory committee centered about the Committee on Mental Health of the Texas Medical Association and including others who actively participate in consultations on a mental health program should be appointed to work out

the details and to recommend temporary measures to be taken while the program is being established and developed.

8. At this time, the appointment of a continuing planning and development committee should be contemplated to advise continuously as to development, improvement, and extension of the mental health service system.

The Texas Medical Association submitted Dr. Gerty's recommendations and comments for consideration by the members of the Texas Legislature, the members of the Board for Texas State Hospitals and Special Schools, and other groups concerned with mental health, tuberculosis, and similar problems in Texas. Appropriate legislation is to be proposed by the board on the basis of Dr. Gerty's recommendations.

Cotton Concentration Company Gift Accepted

The Medical Research Foundation of Texas has received a $5,000 gift from the Cotton Concentration Company of Galveston. It was accepted by Dr. F. J. L. Blasingame, Wharton, at a luncheon meeting in Galveston of officers and members of the foundation's board.

Awards Given for Safety Study

C. Lincoln Williston, executive secretary of the Texas Medical Association (left), received a special safety citation on behalf of the Association from E. C. McFadden of Dallas, president of the Texas Safety Association, February 14 in Austin. Certificates were awarded also to the State Department of Public Safety and the State Department of Health. The recognition came because of cooperation of Texas physicians, highway patrolmen, and health department personnel in collection of data for the Automotive Crash Injury Research conducted by Cornell University Medical College, New York. John O. Moore, director of the Cornell studies, was in Austin for the presentation of awards and gave a progress report to representatives of the various cooperating groups at the luncheon meeting. Mr. Moore cited statistics, illustrated by projected graphs and charts, to show that 1956 and 1957 model cars with safety features suggested by the results of the Cornell research are proving approximately 40 per cent safer than earlier models.

Bertner Foundation Award Presented

The University of Texas M. D. Anderson Hospital and Tumor Institute has presented the 1957 Bertner Foundation Award to John Joseph Bittner, Ph.D., the George Chase Christian Professor of cancer research and director of cancer biology in the Department of Pathology, University of Minnesota Medical School, Minneapolis.

Dr. Bittner received the award at a March 8 banquet in Houston, after which he gave the Bertner Foundation Lecture before participants and guests of Anderson Hospital's eleventh annual symposium on fundamental cancer research. Title of his talk was "Studies on Mammary Cancer in Mice and Their Implications for the Human Problem."

European Air Tour Now Available

Although it became necessary to cancel the medical cruise to be sponsored by the University of Texas Postgraduate School of Medicine in the Caribbean, announced for February, Texas doctors and their families are being invited to take part in a recently organized three-week air tour of Europe, July 27-August 19. Called the University of Texas Medical Branch Tour to Europe, and personally escorted by Miss Mildred Robertson, secretary of the Medical Branch Alumni Association, Galveston, the tour will include the major cities of Europe. For further details, Miss Robertson or the Harvey Travel Bureau, 2109 Church Street, Galveston.

P-Gal Transferase Said To Cause Galactosemia

Scientists of the Public Health Service's National Institute of Arthritis and Metabolic Diseases have discovered a hitherto unknown enzyme, P-Gal transferase, which is necessary to complete conversion in the body of galactose into glucose. Lack of this enzyme in the body causes galactosemia, or galactose diabetes, in children.

Diagnosis of galactosemia is difficult because symptoms are similar to those of other disorders. Diarrhea, lack of appetite, loss of weight, and jaundice appear in the earlier stages; in later stages, cirrhosis of the liver, mental retardation, blindness due to cataract, and death occur. When diagnosed in an early stage, treatment consists of placing the child on a milk-free diet to allow him to grow and develop normally.

Those who made the discovery were Drs. Herman M. Kalckar, Elizabeth P. Anderson, and Kurt J. Isselbacher, working at the National Institutes of Health, Bethesda, Md.

Smog Control Possible in 1957

Dr. W. L. Faith, vice-president of the Air Pollution Foundation, is convinced that "smog as we know it" could be largely eliminated by October 1, 1957, if two specific gains could be made by then: incineration of refuse must be outlawed, and the automobile exhaust problem must be solved. Dr. Faith was one of the panelists at the Second Conference on the Elimination of Air Pollution in Los Angeles. He emphasized, however, that there is little hope of controlling automobile exhaust in the next year, and said that even if this could be accomplished, authorities do not know how much effect it would have on smog reduction.

MEMORIAL LIBRARY

Tape Recordings

Do you have a tape recorder at your disposal? Then why not make better use of it by listening to outstanding lectures and panel discussions on timely medical subjects? The Memorial Library of the Texas Medical Association has a collection of standard tapes (3.75 r.p.m.) which may be borrowed for use at the physician's convenience, either at home or in the office. The titles listed below are only a few of the many tapes from which a choice may be made.

Tonsil and Adenoid Controversy as Seen by the Laryngologist.
Management of Hip Fractures in the Aged.
Safety Factors During Anesthesia.
Neuroses.
Management of Thyroid Disease.
Common Errors in Diagnosis.
A Second Look at the Miracle Drugs.
Are We Any Closer to Defeating Tuberculosis?
The Human Smoking Problem.
Panel on Salk Vaccine.
Consequences of Anxiety: Emotions and the Heart (presented at Merrell Symposium, "Constructive Medicine in Aging," January, 1956).

Concept of Constructive Medicine (also presented at Merrell Symposium).

Gifts to the Library

Mrs. E. B. Baker, Austin, 36 volumes.
Dr. Luise C. Brandenstein, Kerrville, 91 journals.
Dr. E. A. Doles, Austin, 18 journals.
Mrs. Fred Johnson, Austin, 39 journals.
Dr. J. Edward Johnson, Austin, 4 journals; reprints.
Dr. S. N. Key, Jr., Austin, 11 journals; reprints.
Dr. Witten B. Russ, San Antonio, 16 books; reprints.
Dr. Nelson L. Schiller, Austin, 24 journals; reprints.
Dr. C. A. Selby, Sinton, 3 books.
Dr. Lorraine Stengl, El Campo, 129 journals; 4 books; 10 pamphlets; 1 reprint.
Mrs. Sam Thompson, Kerrville, 212 journals; reprints.

NEW BOOKS

Harley, H. R. S.: *Subphrenic Abscess,* Springfield, Ill., Charles C Thomas, 1955.

Ruskin, Arthur: *Classics in Arterial Hypertension,* Springfield, Ill., Charles C Thomas, 1956.

Schwartz, Herman; Nagi, S. H.; and Papper, E. M.: *Manual of Anesthesiology for Residents and Medical Students,* Springfield, Ill., Charles C Thomas, 1956.

Anderson, Odin W., and Feldman, Jacob: *Family Medical Costs and Voluntary Health Insurance; A Nationwide Survey,* New York, Blakiston, 1956.

Leevy, Carroll Morton: *Practical Diagnosis and Treatment of Liver Disease,* New York, Hoeber Harper, 1957.

★ Motion Pictures

The Medical Witness

Sound, black and white, 35 minutes.

The first in a series on medicine and the law, this film is produced by the William S. Merrell Company, pharmaceutical research laboratories, in cooperation with the American Medical Association and the American Bar Association, as a timely service to the medical and legal professions. In vivid, dramatic scenes the film shows by the examples of two physicians, the right way and the wrong way to offer medical testimony on which the plaintiff's suit depends.

★ Books

Treatment of Heart Disease

HARRY GROSS, M. D., F.A.C.P., *and* ABRAHAM JEZER, M. D., *Attending Physicians, Montefiore Hospital, and Assistant Clinical Professors of Medicine, Columbia University College of Physicians and Surgeons. 549 pages. Philadelphia, W. B. Saunders Company, 1956.*

This is a thoroughly modern book on heart disease and its treatment. An effort was made, with considerable success, to present the physiologic basis of therapy. The format of the book differs somewhat from other books on the subject; for example, a chapter is devoted to digitalis and to quinidine. This is followed by an excellent discussion of the arrhythmias, which seems to be a logical sequence. The chapters on digitalis and quinidine are well worth reading.

The book covers all the major aspects of the treatment of heart disease, with several sections devoted to subjects that have received little attention in the standard texts, such as the psychosomatic aspects of cardiac disease. There is little doubt that many symptoms and signs referable to the heart in both cardiac patients and those without disease are frequently iatrogenic.

The section called "Living with a Sick Heart" consists of down-to-earth answers to questions frequently put to the doctor by the patient or his family, and the chapter on emotions, adjustment, and rehabilitation supplies a long felt need in a field which presently is receiving considerable attention from the medical profession.

Of particular interest to the reviewer is the chapter on arteriosclerotic heart disease, which is well written and informative. It is of interest to note that the authors do not advocate the routine use of anticoagulants in myocardial infarction. There is a lucid but rather brief discussion of the work of Gofman with the ultracentrifuge and the Svedberg flotation unit. These studies of the size of the molecules of the lipoid component of the lipoproteins may well supply the long sought for pathogenesis of atherosclerosis.

There is an exhaustive bibliography which represents a monumental amount of research. The occasional typographical error, such as the word "contrasting" instead of "contracting" on page 470, indicates casual proofreading, nothing more. Mention should be made of an excellent section on diets and menus for the cardiac, which comprises the appendix. This includes all the standard diets plus a table of the sodium and potassium content of foods.

The book should be a useful addition to the library of the cardiologist as well as the general practitioner.

—J. H. Friedlander, M. D., Big Spring.

Practical Therapeutics

MARTIN EMIL REHFUSS, M. D., F.A.C.P., *Professor of Clinical Medicine, Emeritus, and Director of the Division of Therapeutics in the Department of Medicine, Jefferson Medical College, Philadelphia; and* ALISON HOWE PRICE, M. D., *Associate Professor of Medicine, Jefferson Medical College, and Chief Clinical Assistant, Diabetic Clinic, Curtis Clinic, Philadelphia. ed. 3. 972 pages. $15. Baltimore, Williams and Wilkins Company, 1956.*

This book is somewhat unusual in its organization and is admirably suited as a quick reference work. The illustrations are well done and porttay the common causes of a symptom, the less common causes, the diagnostic aids, and the therapeutic approach. This method of presentation at once places the reference seeket on rather firm ground to proceed toward both the diagnosis and the treatment. Some 100 illustrative plates are utilized effectively, a good example of which is plate 94, in which the following things are covered: cause, complications, symptoms, signs, laboratory aids, differential diagnosis, and therapy. The explanatory detail that surrounds each plate enables the busy practitioner to get the details in mind rapidly for evaluation of the patient problem at hand.

This book, in my opinion, is well suited for use by interns and residents, as well as general practitioners. The section, "General Therapeutic Principles," includes the diagnostic survey, prescription writing, dietary principles in health and disease, nursing problems of interest to the physician, sterilization procedures, and the various types of equipment. In an unusually, concise and informative section the contents of a physician's bag are listed, together with the many uses to which these items may be properly put.

The chapter on "Symptomatic Thetapy" is concise, informative, and practical in its arrangement. In its first section it takes up with adequate coverage the recent advances in therapy with the vitamins from vitamin A through vitamin B_{12}. In general the material is covered by systems, such as urinary tract, respiratory, and endocrine, as is the grouping of similar conditions, such as allergic disorders, physical agents and poisons, infectious diseases, and systemic mycoses.

The final section is devoted to special treatment, considering the proper indications and usage of the various antibiotics, and the antibiotic sensitivity tests. Also considered in this section are the various therapeutic measures.

The book is excellently organized, including such information as accurate definitions, practical diagnostic features, treatment, prophylaxis, and remedial measures. It is a work that one can put to practical daily use with a minimum of time and effort.

—Joe C. Rude, M. D., Austin.

Clinical Management of Renal Failure

MAURICE B. STRAUSS, M. D., *Professor of Clinical Medicine, Boston University School of Medicine; Lecturer in Medicine, Tufts University School of Medicine; Lecturer in Medicine, Harvard Medical School, Boston, and* LAWRENCE G. RAISZ, M. D., *Instructor in Medicine, Boston University School of Medicine; Physician, Medical Service, Boston Veterans Administration Hospital, Boston. 114 pages. $2.75. Springfield, Ill., Charles C Thomas, 1956.*

This book gives a basic foundation for understanding the pathologic physiology of renal failure, its consequences, and its treatment. It is practical, concise, and gives more emphasis to clinical than to laboratory evaluation. Although chronic renal failure accounts for more morbidity and mortality than does acute, the latter is discussed more fully since it is often a reversible lesion.

The first chapter deals with acute renal failure. One must proceed on the assumption that the lesion is reversible when presented with a patient with marked oliguria or anuria. The first factors to be ruled out are obstructions of the urinary tract and dehydration. Acute failure caused by bilateral cortical nectosis and bilateral renal infarction is discussed briefly as these are irreversible conditions. Failute caused by hemorrhagic papillary necrosis, acute glomerulonephritis, and acute tubular necrosis are dealt with in more detail. An excellent analysis of the physiologic consequences of oliguria precedes the therapeutic regimen. Treatment begins with restoration of any deficit of blood, plasma, water, or electtolytes, with meticulous details of managing daily fluids and electtolytes in the oliguric plus the diuretic phases. Excretion of excess metabolytes and electrolytes by artificial means such as resins, exchange transfusions, and dialytic methods (intestinal lavage, peritoneal lavage, and external dialysis with artificial kidney) is discussed with advantages and disadvantages as well as indications and ptocedures for each method. Grollman's method of peritoneal lavage is one mentioned that can be done in any small hospital, does not require elaborate equipment, and may be life-saving.

The second chapter deals with chronic renal failure. Chronic failure may be from many causes, but these are important only insofar as specific measures may be taken to prevent further damage or alleviate present injury. Therapy is directed toward improvement in renal function by relief of obstruction or infection, therapy of underlying metabolic disease with errors in urates and calcium, and correction of fluid and electrolyte imbalance with special attention given to thetapy of "renal acidosis." Good nutrition is stressed, while foods high in phosphates are to be avoided.

Finally, it should be remembered that acute renal failure is often preventable, usually reversible, and generally treated without difficulty or elaborate apparatus, but when indicated, one of the various instruments should be employed. Chronic renal failure, although irreversible, often may be ameliorated and is consistent with many fruitful years of existence if managed with thought and devotion to detail.

—Peggy J. Newman, M. D., Burnet.

Rose and Carless' Manual of Surgery

SIR CECIL WAKELEY, BT., K.B.E., C.B., LL.D., M.CH., D.SC., F.R.C.S., F.R.S.E., F.R.S.A., F.A.C.S., F.R.A.C.S., *Fellow, Kings College, London; President, Royal College of Surgeons of England; Senior Surgeon, King's College Hospital Medical School; and Examiner in Surgery to the University of Cambridge. ed. 18. 1,471 pages with more than 1,000 illustrations. $12. Baltimore, Williams and Wilkins Company, 1952.*

Medical Terms; Their Origin and Construction

FFRANGCON ROBERTS, M.A., M.D., F.F.R. *ed. 2. 88 pages. $2.50. Springfield, Ill., Charles C Thomas, 1956.*

Experimental Tuberculosis; Bacillus and Host with an Addendum on Leprosy

G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.Ch.; *and* MARGARET P. CAMERON, M.A., A.B.L.S., *assisted by* CECILIA M. O'CONNOR, B.Sc., *Editors for the Ciba Foundation. 396 pages, with 69 illustrations. $9. Boston, Little, Brown and Company, 1955.*

ORGANIZATION SECTION

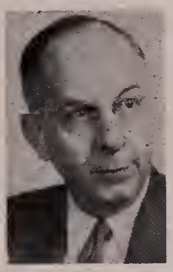
ANNOUNCEMENTS AND PROGRAM

Ninetieth Annual Session

TEXAS MEDICAL ASSOCIATION

April 27-May 1, 1957 (Saturday-Wednesday)

Dallas, Texas



DR. MILFORD O. ROUSE, *Ninety-First President, Texas Medical Association, Dallas.*

DR. DENTON KERR, *President-Elect, Texas Medical Association, Houston.*

MRS. RICHARD C. BELLAMY, *President, Woman's Auxiliary to the Texas Medical Association, Liberty.*

MRS. H. S. RENSHAW, *President-Elect, Woman's Auxiliary to the Texas Medical Association, Fort Worth.*

ANNOUNCEMENTS

To find information about items not covered in this section, please note the following:

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General Meetings, p. 193.
General Meeting Luncheon, p. 194.
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Scientific Sections, p. 196.
Motion Pictures, p. 203.
Scientific Exhibits, p. 204.
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Related Organizations, p. 212.

Registration, Information, and Messages

Preregistration by mail will permit members coming to the annual session to receive their badges and other materials with a minimum expenditure of time and effort. A preregistration card has been mailed to each member and another will be found in this *Journal*. Filling it out and sending it in incurs no obligation. Preregistration cards must be received in the Association office by April 20; otherwise, registration will be carried out in its entirety in Dallas.

Those who have registered in advance by mail will find their badges and programs waiting at the Registration Desk in Hotel Adolphus.

The Registration Desk in Hotel Adolphus will be open Saturday from 12 noon to 8 p. m.; Sunday, Monday, and Tuesday from 8:30 a. m. to 6 p. m.; and Wednesday from 8:30 a. m. to 12:30 p. m. Saturday and Sunday morning registration will be in the hotel lobby; Sunday afternoon and thereafter in the Ballroom.

Information may be obtained at or near the Registration Desk or from the Message Centers, at which messages for physicians will be accepted and telephones maintained for use by physicians. The Message Centers, to be open from Sunday morning throughout the rest of the session, will be as follows:

Adolphus Message Center, check room off Ballroom, Hotel Adolphus, telephone RIverside 8-5973.

Baker Message Center, check room on mezzanine, Baker Hotel, telephone RIverside 1-9229.

Mail and telegrams may be addressed in care of the Texas Medical Association, Baker Hotel, during the period of the annual session.

Woman's Auxiliary

The Woman's Auxiliary will have headquarters at the Statler Hilton Hotel, and all women attending the annual session are invited to register there at the Auxiliary Registration Desk on the mezzanine.

Hotel Accommodations

Hotel reservations are being made through the Committee on Hotels, Dallas County Medical Society, 433 Medical Arts Building, Dallas. The Adolphus and Baker Hotels are headquarters for the Association, and the Statler Hilton Hotel for the Woman's Auxiliary. Facilities that have been recommended for Negro members include El Centro, 906 N. Central Expressway; Lane Hotel, 2611 Flora; and Ross Avenue Courts, 3629 Ross Ave.

A hotel reservation card requiring no postage will be found in this *Journal*.

General Meeting Luncheon

The General Meeting Luncheon on Wednesday at 12:30 p. m. in the Terrace, Baker Hotel, will be open to Association and Auxiliary members and guests. Tickets will be required for admittance, and they will be on sale at $2.50 each near the Registration Desk in Hotel Adolphus until 10 a. m. the day of the luncheon. No refunds will be made after that hour.

President's Dinner Party

A seated dinner honoring the President will be held Tuesday at 8 p. m. in the Grand Ballroom, Statler Hilton Hotel. Following the dinner, from 9:30 p. m. to 1 a. m., will be dancing and entertainment.

Tickets for the entire evening will be $8.50 each and will be on sale near the Registration Desk in Hotel Adolphus until 12 noon the day of the party. No refunds will be made after that hour. As tickets will be limited, they should be purchased promptly upon arrival in Dallas; they may be ordered now from the Association offices, 1801 N. Lamar Blvd., Austin, but there will be no table reservations. Association and Auxiliary members and guests may attend; tickets will be required for attendance. Dress will be optional except for the President's table, where formal dress is requested.

Alumni Banquets

Alumni banquets will be held beginning at 6:30 p. m. Monday. Tickets will be on sale in the lobby of Hotel Adolphus Saturday afternoon and Sunday morning and in the Ballroom, Hotel Adolphus Sunday afternoon and Monday. Dr. George M. Jones, Dallas, is chairman of the Committee on Alumni Banquets.

The events planned, all to be held at the Statler Hilton Hotel, include:

University of Texas Medical Branch, Grand Ballroom.—Separate tickets will be sold for cocktails and the dinner which follows. The program will include entertainment but no speaker. Further details may be had from Miss Mildred M. Robertson, Secretary, Alumni Association Medical Branch, University of Texas, Galveston, or Dr. John S. Chapman, local chairman, 3606 Lovers Lane, Dallas 25.

Baylor University College of Medicine, Junior Ballroom.—The program will include organ music during dinner, a singing entertainer, and a speaker, Lewis Throckmorton, public relations officer for the Republic National Life Insurance Company. Information is available from Dr. J. C. Haley, secretary, Baylor Medical Alumni Association, 1200 M. D. Anderson Blvd., Houston 25, or Dr. Howard K. Crutcher, 1511 N. Beckley, Dallas.

University of Tennessee, Silver Room.—Cocktails and a banquet will be held. The program will include presentation of new developments at the University of Tennessee by a faculty member and F. June Montgomery, secretary of the alumni association, and election of officers. Additional details may be obtained from Dr. Ralph S. Clayton, secretary of the University of Tennessee Alumni in Texas, 105 Medical Arts Bldg., El Paso, or Dr. Hugh Murray, local chairman, 317 N. Zangs Blvd., Dallas. Reservations should be sent to Dr. Murray.

Tulane University of Louisiana, Gold Room.—A cocktail party and dinner will be held by the Texas Chapter of the Tulane Alumni Association. Dr. George V. Launey, 4536 S. Lindhurst, Dallas, is the local chairman.

Fraternity Parties

Fraternity parties will be held from 6:30 to 8 p. m. Tuesday. Dr. Dale J. Austin, Dallas, is chairman of the Committee on Fraternity Activities.

Events planned, all at the Statler Hilton Hotel, include: *Phi Chi,* Gold Room.

DAILY SCHEDULE

Friday

6:00 p.m., Board of Trustees

Saturday

9:00 a.m., Texas Society of Plastic Surgeons
9:30 a.m., Board of Councilors
9:30 a.m., Committee on Blood Banks
10:00 a.m., Council on Medical Defense
11:45 a.m., Committee on Bracero Insurance and Medical Care
12:00 noon, Committee on Indoctrination
1:00 p.m., Committee on Cardiovascular Disease
1:00 p.m., Council on Medical Education and Hospitals
1:00 p.m., Council on Medical Jurisprudence
1:00 p.m., American College of Surgeons, Fourth Dist. of Texas
2:00 p.m., Committee for Liaison with Workmen's Compensation Insurance Companies
2:00 p.m., Committee on School-Physician Relationships
2:00 p.m., Council on Medical Economics
Afternoon, American Medical Association Committee on Aging
4:00 p.m., Committee on Rural Health and Doctor Distribution
4:00 p.m., Council on Constitution and By-Laws
4:00 p.m., State Committee on AMEF
8:00 p.m., House of Delegates

Sunday

7:30 a.m., American Medical Association Delegates
8:00 a.m., Texas Diabetes Association
8:30 a.m., Texas Neuropsychiatric Association
8:30 a.m., Woman's Auxiliary Council Women's Breakfast
9:00 a.m., Texas Chapter, American College of Chest Physicians
9:00 a.m., Texas Heart Association
9:00 a.m., Texas Society of Anesthesiologists
All day, American Medical Association Committee on Aging
10:00 a.m., Reference Committees
10:00 a.m., Texas Traumatic Surgical Society
10:30 a.m., Gonzales Warm Springs Foundation Advisory Com.
12:00 noon, Texas Air-Medics Association
12:30 p.m., Woman's Auxiliary State Executive Board Luncheon
2:00 p.m., Reference Committees
2:00 p.m., Texas Physical Medicine and Rehabilitation Society
2:00 p.m., Texas Society of Gastroenterologists and Proctologists
4:30 p.m., Memorial Services
5:30 p.m., Council on Scientific Work
6:30 p.m., Texas Chapter, American Association of Public Health Physicians
7:00 p.m., Woman's Auxiliary Past Presidents' Dinner
7:30 p.m., House of Delegates
7:30 p.m., Motion Pictures
Scientific and Technical Exhibits; Health Fair

Monday

8:00 a.m., Committee on Industrial Health
8:15 a.m., Refresher Courses
10:00 a.m., General Meeting
10:00 a.m., Motion Pictures
10:00 a.m., Texas Air-Medics Association
10:00 a.m., Texas Orthopedic Association
10:15 a.m., Texas Dermatological Society
12:00 noon, Woman's Auxiliary Luncheon and Business Session
12:15 p.m., Council on Scientific Work and Section Officers
12:30 p.m., Past Presidents Association
1:30 p.m., Texas State Advisory Committee
2:00 p.m., Conference of City and County Health Officers
2:00 p.m., Scientific Sections
6:30 p.m., Alumni Banquets
Scientific and Technical Exhibits; Health Fair

Tuesday

7:30 a.m., Fifty Year Club
8:15 a.m., Refresher Courses
8:30 a.m., Woman's Auxiliary Business Session
10:00 a.m., General Meeting
10:00 a.m., Motion Pictures
10:00 a.m., Texas Geriatrics Society
10:00 a.m., Texas Ophthalmological Association
12:00 noon, Texas Industrial Medical Association
12:00 noon, Woman's Auxiliary Luncheon and Style Show
12:15 p.m., Society of Life Insurance Medical Directors of Texas
2:00 p.m., Scientific Sections
5:00 p.m., Texas Society of Pathologists, Inc.
6:30 p.m., Fraternity Parties
8:00 p.m., President's Dinner Party
Scientific and Technical Exhibits; Health Fair

Wednesday

8:00 a.m., House of Delegates
8:15 a.m., Refresher Courses
8:30 a.m., Woman's Auxiliary Post-Convention Executive Board
10:00 a.m., General Meeting
10:00 a.m., Motion Pictures
12:30 p.m., General Meeting Luncheon
Scientific and Technical Exhibits

House of Delegates

The House of Delegates will hold its first meeting in the Ballroom, Baker Hotel, Saturday at 8 p. m. It is anticipated that the House will reconvene Sunday at 7:30 p. m. and again Wednesday morning at 8 a. m. The agenda for the House, together with such reports as were available at press time and a list of Association officers and committees, have been incorporated into a handbook for members of the House and may be obtained by others upon request. All members of the Association may attend meetings of the House but may not participate in discussion or voting unless designated as delegates.

Reference Committees

Reference committees will hold their first meetings to consider business assigned to them by the Speaker of the House of Delegates at 10 a. m. and 2 p. m. Sunday. Additional meetings will be at such other times as the chairmen of the committees find necessary. Meeting places other than for the first meetings will be assigned at the Baker Message Center in the mezzanine check room, Baker Hotel. Committee chairmen are urged to inform the Message Center staff when they have called meetings so that inquirers can be directed properly.

Any member of the Association may arrange with a reference committee for appearance in defense of or opposition to reports referred to it from the House of Delegates.

Meetings of reference committees Sunday at 10 a. m. and 2 p. m. will be held in the Baker Hotel as follows:

Reports of Officers and Committees—Tally Ho Room.
Resolutions and Memorials—Camellia Room.
Finance—Banquet Room 1.
Amendments to Constitution and By-Laws—Banquet Room 4.
Scientific Work—Banquet Room 3.
Medical Service and Public Relations—Banquet Room 5.
Board of Councilors—to be assigned.
Board of Trustees—Room 950.

Committee Meetings

The following committee meetings have been scheduled for Friday, Saturday, Sunday, and Monday. All meeting places are in the Baker Hotel unless otherwise noted:

FRIDAY

Board of Trustees, 6 p. m., to be assigned, dinner.

SATURDAY

Board of Councilors, 9:30 a. m., to be assigned.
Committee for Liaison with Workmen's Compensation Insurance Companies, 2 p. m., Banquet Room 4.
Committee on Blood Banks, 9:30 a. m., Banquet Room 4.
Committee on Bracero Insurance and Medical Care, 11:45 a. m., Banquet Room 2, lunch.
Committee on Cardiovascular Disease, 1 p. m., Banquet Room 1.
Committee on Indoctrination, 12 noon, Banquet Room 4, lunch.
Committee on Rural Health and Doctor Distribution, 4 p. m., Banquet Room 1.
Committee on School-Physician Relationships, 2 p. m., English Room.
Council on Constitution and By-Laws, 4 p. m., Banquet Room 5.
Council on Medical Economics, 2 p. m., Banquet Room 2.
Council on Medical Education and Hospitals, 1 p. m., Tally Ho Room.
Council on Medical Defense, 10 a. m., Tally Ho Room.
Council on Medical Jurisprudence, 1 p. m., Banquet Room 3.
State Committee on American Medical Education Foundation, 4 p. m., Banquet Room 4.

SUNDAY

American Medical Association Delegates, 7:30 a. m., Tally Ho Room, breakfast.
Council on Scientific Work, 5:30 p. m., Banquet Room 1, supper.

MONDAY

Committee on Industrial Health, 8 a. m., Parlor D, Hotel Adolphus, breakfast.
Council on Scientific Work and Officers of Scientific Sections, 12:15 p. m., Tally Ho Room, luncheon.
Texas State Advisory Committee, 1:30 p. m., Parlor E, Hotel Adolphus.

Stenographers

A Stenographers Room will be set up on the third floor of the Baker Hotel. Stenographers will be furnished upon request at the Baker Message Center in the mezzanine check room, Baker Hotel.

Press Room

A Press Room will be maintained in Room 1506, Hotel Adolphus, telephone RIverside 7-0496.

American College of Surgeons, Fourth District of Texas Chapter

The Fourth District of Texas Chapter of the American College of Surgeons will meet Saturday in the French Room, Hotel Adolphus. Registration will begin at 1 p. m. with a scientific program from 1:30 until 5 p. m. Cocktails and dinner will follow. Any fellow of the American College of Surgeons may attend these events. Reservations for the dinner should be made in advance with Dr. Dale J. Austin, Secretary, 1008 N. Washington, Dallas 4.

American Medical Association Committee on Aging

The American Medical Association's Committee on Aging under the chairmanship of Dr. H. B. Mulholland, Charlottesville, Va., will meet Saturday and Sunday in Room 310, Baker Hotel. The committee will meet with representatives of state and local medical societies in the southwestern area on Saturday, will discuss its own business Sunday morning, and will confer again Sunday afternoon with representatives of other medical groups.

American Medical Association Committee on Federal Medical Services

The American Medical Association Committee on Federal Medical Services will confer with representatives from Bexar County Medical Society at 10 a. m. Monday in Parlor B, Hotel Adolphus.

Fifty Year Club

The Fifty Year Club for physicians who have been in medical practice at least 50 years will have breakfast at 7:30 a. m. Tuesday in Parlor D, Hotel Adolphus. Dr. L. H. Reeves, Fort Worth, secretary, is making arrangements.

Ganzales Warm Springs Faundatian Medical Advisary Cauncil

The Gonzales Warm Springs Foundation Medical Advisory Council will meet Sunday at 10:30 a. m. in Parlor B, Hotel Adolphus. Dr. Odon F. von Werssowetz, Gonzales, is the contact person.

Past Presidents Assaciatian

The Past Presidents Association luncheon will be held at 12:30 p. m. Monday in Parlor B, Hotel Adolphus. Dr. L. H. Reeves, Fort Worth, secretary, is in charge of arrangements.

Society af Life Insurance Medical Directars

The Society of Life Insurance Medical Directors of Texas will have a luncheon at 12:15 p. m. Tuesday in the Tally Ho Room, Baker Hotel. Dr. Chester E. Cook, Dallas, secretary, is in charge of arrangements.

Texas Physical Medicine and Rehabilitatian Saciety

An organizational meeting of the Texas Physical Medicine and Rehabilitation Society will be held Sunday at 2 p. m. in Parlor B, Hotel Adolphus. Tentative qualifications for membership include certification by the American Board of Physical Medicine and Rehabilitation and an interest in fostering the work of the specialty. Other physicians interested in the society may attend scientific presentations. Details may be obtained from Dr. Odon F. von Werssowetz, Gonzales Warm Springs Foundation, Gonzales, who is interim chairman.

Health Fair

Sixty-six three-dimensional and participating exhibits for health education will be shown in a Health Fair sponsored by the Woman's Auxiliary to the Texas Medical Association during the annual session. Open to the public and housed in the Dallas Health Museum in Fair Park, the fair will last from April 28 through May 5, with the doors open from 11 a. m. to 6 p. m. In addition to the 42 exhibits permanently on display in the museum will be 24 offered especially for this occasion by the American Medical Association, medical and dental schools, statewide and Dallas health organizations, and governmental agencies. There will be mass testing for diabetes, vision, and tuberculosis. Physicians and their families are cordially invited to visit the Health Fair. Details are available from Mrs. Jackson H. Speegle, Dallas.

Sparts

Golf Tournament.—The Texas Medical Association Golf Tournament will be held Tuesday, April 30, at Lakewood Country Club, beginning at 8 a. m., with foursomes teeing off at intervals of approximately 10 minutes. All matches will be played in foursomes, which may be formed by groups wishing to play together or will be organized at the first tee by the starter. All players entering the tournament should register at the earliest possible convenience with the committee so that playing times may be scheduled adequately; the names of persons forming foursomes and the preferred teeing off times also will be appreciated by the committee. Lunch and refreshments will be available at the players' expense. Prizes will be awarded to players for various accomplishments in touring the 18 holes. Further information may be obtained from Dr. R. L. Noonan, chairman of the Golf Committee, 111 N.E. 11th, Grand Prairie.

Skeet Shoot.—Experts and amateurs alike are invited to participate in the Skeet Shoot to be held Tuesday, April 30, at 3 p. m. at the new Dallas Gun Club. Competition will consist of 50 targets, and trophies will be awarded. A special trophy will be given in the novice class. Guns will be available and refreshments will be served at the club house. Transportation will be provided from the Registration Desk at Hotel Adolphus. Advance registration is requested by Dr. Oliver F. Bush, Doctors Building, 3707 Gaston Ave., Dallas, chairman of the committee.

Committee an General Arrangements

The Committee on General Arrangements for the Annual Session consists of Drs. Ridings E. Lee, Dale J. Austin, George M. Jones, Taylor T. Pickett (Garland), and Robert J. Rowe, all of Dallas except as noted.

GUESTS

ROBERT B. ANDERSON, *President of Ventures, Ltd.; formerly Secretary of the Navy, New York.*

General Meeting Luncheon Address, Wednesday, 2:00 p. m.

(Sponsor: R. W. Kimbro, Cleburne.)

DR. LOUIS A. BRUNSTING, *Head of Section on Dermatology and Syphilology, Mayo Clinic, Rochester, Minn.*

Treatment of Common Skin Diseases, Refresher Course, Monday, 8:15 a. m.
The Use and Misuse of Steroids in Dermatology, Texas Dermatological Society, Monday, 10:15 a. m.
Precancerous Lesions of the Skin, Section on Radiology, Tuesday, 4:00 p. m.

(Sponsor: Everett C. Fox, Dallas.)

Texas Medical Association Members

Are Invited to Attend

RELATED ORGANIZATION PROGRAMS

See Pages 212-217

DR. THOMAS H. BURFORD, *Professor of Thoracic Surgery, Washington University School of Medicine, St. Louis.*

Diagnosis and Management of Surgical Diseases of the Chest in Children, Texas Chapter, American College of Chest Physicians, Sunday, 10:45 a. m.

Panel Discussion: The Management of Inoperable Lung Cancer, Texas Chapter, American College of Chest Physicians, Sunday, 11:15 a. m.

Immediate Management of Major Chest Injuries, Refresher Course, Monday, 8:15 a. m.

Panel Discussion: Evaluation and Treatment of Chronic Bronchopulmonary Disease, Section on Internal Medicine, Monday, 4:00 p. m.

The Problem of the Mediastinal Tumor, Section on Surgery, Tuesday, 2:40 p. m.

(Sponsor: William Ashe, Dallas.)

Psychic Driving, Texas Neuropsychiatric Association, Sunday, 10:30 a. m.

The Modern Department of Psychiatry in the General Hospital, Texas Neuropsychiatric Association, Sunday, 3:30 p. m.

New Methods of Treatment of Behavioral Disorder in the Aged, Refresher Course, Monday, 8:15 a. m.

(Sponsor: Perry C. Talkington, Dallas.)

DR. D. EWEN CAMERON, *Chairman of Department of Psychiatry, McGill University, Montreal, Canada.*

DR. RICHARD H. CHAMBERLAIN, *Professor of Radiology, University of Pennsylvania School of Medicine, Philadelphia.*

Risks and Rewards in the Use of the Fluoroscope, Refresher Course, Tuesday, 8:15 a. m.

Achievements and Deficiencies in the Management of Thyrotoxicosis with Radioactive Iodine, Section on Radiology, Tuesday, 3:00 p. m.

Panel Discussion: Carcinoma of the Cervix, Section on Obstetrics and Gynecology, Tuesday, 4:00 p. m.

(Sponsor: Glenn D. Carlson, Dallas.)

DR. WARREN H. COLE, *Professor and Head of Department of Surgery, University of Illinois College of Medicine, Chicago.*

Surgical Lesions of the Thyroid, Refresher Course, Monday, 8:15 a. m.

Recent Trends in Surgery of the Gallbladder and Common Duct, General Meeting, Monday, 11:30 a. m.

Surgical Aspects of Splenic Disease, Section on Surgery, Monday, 3:40 p. m.

(Sponsor: Andrew B. Small, Dallas.)

DR. LAURENCE B. ELLIS, *Associate Clinical Professor of Medicine, Harvard Medical School, Boston.*

Selection of Patients for Mitral Valvular Surgery: Based on 1,000 Cases Followed from One to Seven Years, Texas Heart Association, Sunday, 11:20 a. m.

Differential Diagnosis of Cardiac and Pulmonary Dyspnea, Section on Internal Medicine, Monday, 3:30 p. m.

Diagnosis and Management of the Edematous Patient, General Meeting, Tuesday, 11:00 a. m.

Long Term Management of Coronary Disease, Including the Place of Surgery and Other Radical Treatments, Refresher Course, Wednesday, 8:15 a. m.

(Sponsor: Samuel Shelburne, Dallas.)

Panel Discussion: Evaluation and Treatment of Chronic Bronchopulmonary Disease, Section on Internal Medicine, Monday, 4:00 p. m.

Pathologic Physiology of Pulmonary Emphysema in Relation to Therapy, Section on Internal Medicine, Tuesday, 2:20 p. m.

An Internist's View of the Optic Fundus, Refresher Course, Wednesday, 8:15 a. m.

Physiologic and Diagnostic Significance of Some Common Signs and Symptoms, General Meeting, Wednesday, 11:30 a. m.

(Sponsor: John S. Chapman, Dallas.)

DR. JOHN B. HICKAM, *Associate Professor of Medicine, Duke University School of Medicine, Durham, N. C.*

DR. JOHN R. HILL, *Section of Proctology, Mayo Clinic, Rochester, Minn.*

Ulceration of the Rectum and Terminal Portion of the Colon: Significance in the Absence of Malignant Disease and Chronic Ulcerative Colitis, Texas Society of Gastroenterologists and Proctologists, Sunday, 3:00 p. m.

Pain in the Anorectal Region from the Standpoint of Causation, Refresher Course, Monday, 8:15 a. m.

Abscesses and Sinuses in the Perianal Region: Differential Diagnosis and Treatment, Section on General Practice, Tuesday, 2:00 p. m.

(Sponsor: J. G. Kerr, Dallas.)

And Bring Your Wife

WOMAN'S AUXILIARY CONVENTION

April 27 - May 1 — Dallas

Program on Page 222

The Child, Normal or Abnormal, Texas Neuropsychiatric Association, Sunday, 2:30 p. m.
Psychosomatic Illness in Children, Section on Pediatrics, Monday, 4:00 p. m.
Medical Implications of School Failure, Refresher Course, Tuesday, 8:15 a. m.
Mental Retardation, Section on Pediatrics, Tuesday, 4:00 p. m.

(Sponsor: Eugene L. Aten, Dallas.)

DR. REYNOLD A. JENSEN, *Professor of Psychiatry and Pediatrics, University of Minnesota Medical School, Minneapolis.*

DR. ARTHUR C. JONES, *Otolaryngologist, Jones Clinic, Boise, Idaho.*

Helpful Hints for the Everyday Practice, Refresher Course, Monday, 8:15 a. m.
Toti-Mosher Operation for Dacryocystitis, Section on Eye, Ear, Nose, and Throat, Monday, 2:00 p. m.
Aerotitis, the Advisability of Recognition and the Proper Method of Handling, Section on Eye, Ear, Nose, and Throat, Monday, 4:30 p. m.

(Sponsor: Edward A. Newell, Dallas.)

Treatment of Fractures of the Forearm, Texas Traumatic Surgical Society, Sunday, 2:00 p. m.
Management of Congenital Dysplasia and Congenital Dislocation of the Hip, Texas Orthopedic Association, Monday, 10:15 a. m.
Practical Considerations in the Management of Malignant Bone Tumors, Section on Clinical Pathology, Monday, 2:00 p. m.
Panel Discussion: Diagnostic and Therapeutic Orthopedic Problems, Texas Orthopedic Association, Monday, 3:00 p. m.
Fractures Which May Be Safely Handled in the Office of the General Practitioner, Refresher Course, Tuesday, 8:15 a. m.

(Sponsor: Brandon Carrell, Dallas.)

DR. H. RELTON MCCARROLL, *Assistant Professor of Clinical Orthopedic Surgery, Washington University School of Medicine, St. Louis.*

Avoid Waiting in Dallas

PREREGISTER

Postage Free Card After Page 200

DR. HENRY B. MULHOLLAND, *Professor of Internal Medicine and Assistant Dean, University of Virginia Medical School, Charlottesville.*

Insulin Resistance in Diabetes, Texas Diabetes Association, Sunday, 3:00 p. m.
Management of Cirrhosis of the Liver, Refresher Course, Tuesday, 8:15 a. m.
Medical Aspects of Aging and Long-Term Illness, Texas Geriatrics Society and Section on Public Health (luncheon), Tuesday, 12:00 noon.
Panel Discussion: What and How I Teach My Diabetic Patients, Section on Internal Medicine, Tuesday, 4:00 p. m.

(Sponsor: J. O. S. Holt, Dallas.)

Abuse of Radiation in Eye Diseases, Texas Ophthalmological Association, Tuesday, 10:30 a. m.
Unusual Ocular Infections, Section on Eye, Ear, Nose, and Throat, Tuesday, 4:00 p. m.

(Sponsor: O. M. Marchman, Jr., Dallas)

DR. HUGH L. ORMSBY, *Associate in Ophthalmology, University of Toronto, Toronto, Canada.*

DR. A. D. RUEDEMANN, SR., *Professor of Ophthalmology, Wayne University College of Medicine, Detroit.*

Unilateral Exophthalmos, Refresher Course, Tuesday, 8:15 a. m.
Complications of Cataract Extraction, Section on Eye, Ear, Nose, and Throat, Tuesday, 2:00 p. m.
Some Ophthalmic Conditions of Interest to General Practitioners and Pediatricians, Section on General Practice, Tuesday, 5:00 p. m.
Ophthalmologic-Optometric Relations, General Meeting, Wednesday, 10:30 a. m.

(Sponsor: Speight Jenkins, Dallas.)

Tumors in Children, Refresher Course, Monday, 8:15 a. m.
The Cystic Ovary—Surgical or Non-Surgical? General Meeting, Tuesday, 10:30 a. m.
Tumors of the Salivary Gland, Section on Clinical Pathology, Tuesday, 2:00 p. m.
Panel Discussion: Carcinoma of the Cervix, Section on Obstetrics and Gynecology, Tuesday, 4:00 p. m.

(Sponsor: J. L. Goforth, Dallas.)

DR. JOHN R. SCHENKEN, *Professor of Pathology and Chairman, Department of Pathology, University of Nebraska College of Medicine, Omaha, Neb.*

DR. ROGER B. SCOTT,
Associate Professor of Obstetrics and Gynecology, Western Reserve University School of Medicine, Cleveland.

Panel Discussion: Urinary Tract Problems in the Ob-Gyn Patient, Section on Obstetrics and Gynecology, Monday, 2:00 p. m.
Some Problems of Pediatric and Adolescent Gynecology, Section on Obstetrics and Gynecology, Monday, 4:30 p. m.
How to Avoid "Greetings" from the Tissue Committee for Your Gynecologic Surgery, General Meeting, Tuesday, 10:00 a. m.
Panel Discussion: Carcinoma of the Cervix, Section on Obstetrics and Gynecology, Tuesday, 4:00 p. m.
Abnormal Uterine Bleeding with Particular Reference to Dysfunctional Type, Refresher Course, Wednesday, 8:15 a. m.

(Sponsor: Jack Pritchard, Dallas.)

Public Health—Its Promise for the Future, Texas Chapter, American Association of Public Health Physicians, Sunday, 7:00 p. m.
Convalescent Homes and Their Place in the Medical Care of the Community, Conference of City and County Health Officers, Monday, 2:00 p. m.
The Place of the Family Doctor in Comprehensive Medical Care, Section on Public Health, Tuesday, 2:00 p. m.
Care of the Aged Infirm—Planning for the Future, General Meeting, Wednesday, 10:00 a. m.

(Sponsor: J. W. Bass, Dallas.)

DR. WILSON G. SMILLIE,
Professor Emeritus of Preventive Medicine, Cornell University Medical College, New York.

DR. CALVIN M. SMYTH,
Professor of Surgery, University of Pennsylvania Graduate School of Medicine, Abington, Pa.

Cancer of the Rectum, Section on Surgery, Monday, 2:40 p. m.
Chronic Ulcerative Colitis, General Meeting, Tuesday, 11:30 a. m.
Panel Discussion: Treatment of Choice for Duodenal Ulcerations, Section on Surgery, Tuesday, 4:10 p. m.
Differential Diagnosis of Acute Abdominal Conditions, Refresher Course, Wednesday, 8:15 a. m.

(Sponsor: Frank Kidd, Dallas.)

Tickets Required to Attend
REFRESHER COURSES
Register upon Arrival in Dallas

The Value of Succinylcholine in Electro-Convulsive Therapy and Laryngospasm, Texas Neuropsychiatric Association, Sunday, 9:30 a. m.
Anesthesia for Eye Surgery, Texas Society of Anesthesiologists, Sunday, 11:30 a. m.
Fire and Explosion Hazards in Hospitals and Their Control, Section on General Practice, Monday, 2:00 p. m.
Anesthesia by the General Practitioner, Refresher Course, Wednesday, 8:15 a. m.

(Sponsor: Raymond Courtin, Dallas.)

DR. ROBERT W. VIRTUE,
Professor of Anesthesiology, University of Colorado Medical Center, Denver.

DR. GEORGE J. THOMAS,
Associate Professor of Surgery and Chairman, Section on Anesthesiology, University of Pittsburgh School of Medicine, Pittsburgh.

Hypothermia During Surgery, Texas Society of Anesthesiologists, Sunday, 2:00 p. m.
Emergencies in Anesthesia: Let's Stress Prevention, Section on General Practice, Monday, 2:30 p. m.
Safety Factors in Anesthesia, Refresher Course, Tuesday, 8:15 a. m.
Blood Volume and Blood Replacement During Surgery, Section on Surgery, Tuesday, 3:40 p. m.

(Sponsor: J. B. Wood, Dallas.)

Care of Patients with Multiple Injuries, Texas Traumatic Surgical Society, Sunday, 4:15 p. m.
Importance of Joint Motion in the Treatment of Fractures, Texas Orthopedic Association, Monday, 11:15 a. m.
Treatment of Fractures in Children, Refresher Course, Wednesday, 8:15 a. m.
Auto-Crash Injury Research, General Meeting, Wednesday, 11:00 a. m.

(Sponsor: Mark L. Welch, Dallas.)

DR. PRESTON A. WADE,
Professor of Clinical Surgery, Cornell University Medical College, New York.

DR. FREDERICK W. WILLIAMS,
President of American Diabetes Association and Associate Clinical Professor of Medicine, New York Medical College, New York.

Classification of Surgical Complications of the Lower Extremities, Texas Diabetes Association, Sunday, 10:30 a. m.
Management of the Diabetic Patient Preoperatively and Postoperatively, Texas Diabetes Association, Sunday, 4:00 p. m.
Surgical Complications of the Lower Extremities in Diabetes, Refresher Course, Tuesday, 8:15 a. m.
Panel Discussion: What and How I Teach My Diabetic Patients, Section on Internal Medicine, Tuesday, 4:00 p. m.

(Sponsor: Edwin L. Rippy, Dallas.)

Erythroblastosis Fetalis, Section on Pediatrics, Monday, 2:00 p. m.
Visceral Larva Migrans, Section on Clinical Pathology, Monday, 4:00 p. m.
Anemias in Infancy and Childhood, Refresher Course, Tuesday, 8:15 a. m.

(Sponsor: E. L. Pratt and Gladys Fashena, Dallas.)

DR. WOLF W. ZUELZER, *Director of Child Research Center of Michigan, Detroit.*

SPECIAL SPEAKERS

ROSA MACRI ADAIR, Nutrition Consultant, Dallas.
Panel Discussion: What Physicians Should Know About the Diabetic Diet.
Texas Diabetes Association, Sunday, 12:30 p. m.

JUDY BARNEY, Therapeutic Dietitian, Dallas.
Panel Discussion: What Physicians Should Know About the Diabetic Diet.
Texas Diabetes Association, Sunday, 12:30 p. m.

BUFORD H. BURCH, M. D., Chief of Thoracic Surgery, Patton State Hospital, Patton, Calif.
Single Stage Thoracoplasty Using a Simple Technique to Control Paradoxical Chest Wall Motion.
Texas Chapter, American College of Chest Physicians, Sunday, 2:45 p. m.

MR. W. A. CRAWFORD, Civil Aeronautics Administration Attorney, Region 2, Fort Worth.
Legal Problems in Medical Certification of Airmen.
Texas Air-Medics Association, Monday, 10:30 a. m.

BEATRIX COBB, Ph.D., Chief Psychologist, M. D. Anderson Foundation, Houston.
Psychology in Aviation Medicine.
Texas Air-Medics Association, Monday, 2:30 p. m.

ROBERT L. EGAN, M. D., Assistant Radiologist, M. D. Anderson Hospital, Houston.
Roentgen Manifestations of Leukemias and Lymphomas in Childhood.
Section on Radiology, Monday, 4:30 p. m.

MARY FADEFF, Therapeutic Dietitian, Dallas.
Panel Discussion: What Physicians Should Know About the Diabetic Diet.
Texas Diabetes Association, Sunday, 12:30 p. m.

MR. GEORGE P. GARDERE, LL.B., Trial Attorney with Leachman, Gardere, Akin & Porter, Attorneys and Counselors, Dallas.
Medical, Legal, and Insurance Aspects of the Treatment of Industrial Injuries.
Refresher Course Panel, Tuesday, 8:15 a. m.

MR. HARRY W. GINTY, LL.B., Vice-President, Medical Protective Company, Fort Wayne, Ind.
Current Trends in Malpractice.
Refresher Course Panel, Monday, 8:15 a. m.

MR. JOSH H. GROCE, LL.B., Attorney with Eskridge, Groce & Hebdon, Attorneys at Law, San Antonio.
Current Trends in Malpractice.
Refresher Course Panel, Monday, 8:15 a. m.

MR. BERNARD D. HIRSH, LL.B., Staff Associate, Law Department, American Medical Association, Chicago, Ill.
Current Trends in Malpractice.
Refresher Course Panel, Monday, 8:15 a. m.

HOWARD C. HOPPS, M. D., Professor and Chairman, Department of Pathology, University of Texas Medical Branch, Galveston.
The Pathogenesis of Hepatic Cirrhosis.
Section on Clinical Pathology, Tuesday, 2:30 p. m.

HARRIS ISBELL, M. D., Director, Addiction Research Center, U. S. Public Health Service Hospital, Lexington, Ky.
Medical Aspects of Opiate Addiction.
Texas Neuropsychiatric Association, Sunday, 2:00 p. m.

WINGATE M. JOHNSON, M. D., Professor of Internal Medicine, Bowman Gray School of Medicine, Winston-Salem, N. C.
Management of the Nervous Patient.
Refresher Course, Monday, 8:15 a. m.

J. RODERICK KITCHELL, M. D., Associate Professor of Cardiology, Jefferson Medical College of Philadelphia, Philadelphia, Pa.
The Late Management of Myocardial Infarction.
Texas Heart Association, Sunday, 9:50 a. m.

The Pulse Duplicator Machine.
Texas Heart Association, Sunday, 4:10 p. m.

R. N. KRAUSE, Col., MC, USAF, School of Aviation Medicine, Randolph Field.
Aircraft Noise and Its Side Effects.
Texas Air-Medics Association, Sunday, 4:00 p. m.

PHILIP M. MARKLE, M. D., Memphis, Tenn.
Comments on American Board of Aviation Medicine.
Texas Air-Medics Association, Monday, 3:00 p. m.

L. J. MILCH, Col., MC, USAF, School of Aviation Medicine, Randolph Field.
Motion Sickness Drug Therapy (motion picture).
Texas Air-Medics Association, Sunday, 3:00 p. m.

HERMAN J. MOERSCH, M. D., President, American College of Chest Physicians, Rochester, Minn.
The Value of Endoscopy in the Diagnosis of Bronchoesophageal Disease.
Texas Chapter, American College of Chest Physicians, Sunday, 2:00 p. m.

MR. PHILIP R. OVERTON, LL.B., General Counsel, Texas Medical Association, Austin.
Current Trends in Malpractice.
Refresher Course Panel, Monday, 8:15 a. m.

MR. SMITH PETTIGREW, Medical Co-Ordinator, Texas Employers' Insurance Association and Employers' Casualty Company, Dallas.
Medical, Legal, and Insurance Aspects of the Treatment of Industrial Injuries.
Refresher Course Panel, Tuesday, 8:15 a. m.

GEORGE PRAZAK, Col., MC, USA, San Antonio.
Plantar Warts; Their Diagnosis and Treatment.
Texas Dermatological Society, Monday, 11:45 a. m.

NORMAN M. SCOTT, JR., Lt. Col., MC., USA, San Antonio.
Heterotopic Pancreatic Tissue in the Stomach—Gastroscopic Features.
Section on Internal Medicine, Monday, 2:40 p. m.

WILLIAM SHIVE, Ph.D., Professor of Chemistry and Research Scientist, Biochemical Institute, University of Texas, Austin.
Glutamine Therapy of Peptic Ulcer.
Section on Internal Medicine, Monday, 2:20 p. m.

JOHN W. SIMPSON, Col., MC, USA, San Antonio.
Panel Discussion: Urinary Tract Problems in the Ob-Gyn Patient.
Section on Obstetrics and Gynecology, Monday, 2:00 p. m.

JACKSON A. SMITH, M. D., University of Nebraska, Omaha, Neb.
Psychiatric Research in Aging.
Texas Geriatrics Society, Tuesday, 10:45 a. m.

MR. HALL E. TIMANUS, LL.B., Attorney with Andrews, Kurth, Campbell & Bradley, Houston.
Current Trends in Malpractice.
Refresher Course Panel, Monday, 8:15 a. m.

EILEEN WILLIAMS, Therapeutic Dietitian, Dallas.
Panel Discussion: What Physicians Should Know About the Diabetic Diet.
Texas Diabetes Association, Sunday, 12:30 p. m.

MEMBER SPEAKERS

LUKE W. ABLE, Houston.
Recurring Abdominal Pain in Children.
Section on Pediatrics, Monday, 2:30 p. m.

DORIS J. D. ADAM, Galveston.
Current Concepts in the Prevention and Management of Tetanus.
Section on Pediatrics, Tuesday, 4:30 p. m.

MAURICE ADAM, Galveston.
Current Concepts in the Prevention and Management of Tetanus.
Section on Pediatrics, Tuesday, 4:30 p. m.

HERBERT C. ALLEN, JR., Houston.
Use of P^{32} Radioactive Phosphorus in the Diagnosis of Intraocular Neoplasm—Pathologic Aspects.
Section on Clinical Pathology, Monday, 3:00 p. m.

WILLIAM T. ARNOLD, Houston.
Gastric Lesions, Benign and Malignant; Diagnostic Approach, Including Gastric Cytology.
Section on Internal Medicine, Tuesday, 2:00 p. m.

NOEL R. BAILEY, Fort Worth.
Postmenopausal Medical Gynecology.
Section on Obstetrics and Gynecology, Tuesday, 2:30 p. m.

J. PEYTON BARNES, Houston.
Vagotomy and Gastrectomy in the Treatment of Duodenal Ulcer.
Section on General Practice, Tuesday, 4:00 p. m.

F. J. L. BLASINGAME, Wharton.
Address of Member of Board of Trustees of American Medical Association: Things of Good Report.
General Meeting, Monday, 11:00 a. m.

F. P. BORNSTEIN, El Paso.
The El Paso County Program for the Medical Investigation of Sexual Offenses.
Section on Clinical Pathology, Tuesday, 4:30 p. m.

G. V. BRINDLEY, JR., Temple.
Indications for Conservative Resection in Carcinoma of the Lung.
Section on Surgery, Tuesday, 2:00 p. m.

WILLIAM S. BRUMAGE, Austin.
Texas Keeps Books on Cancer.
Section on Public Health, Tuesday, 4:00 p. m.

CURTIS H. BURGE, Houston.
Intravenous Cholangiography and Cholecystography.
Section on Radiology, Monday, 2:30 p. m.

CARLETON B. CHAPMAN, Dallas.
Use of Exercise in Evaluation of Patients for Surgery of the Mitral Valve.
Section on Internal Medicine, Tuesday, 2:50 p. m.

JOHN S. CHAPMAN, Dallas.
Panel Discussion: Evaluation and Treatment of Chronic Bronchopulmonary Disease.
Section on Internal Medicine, Monday, 4:00 p. m.

R. H. CHAPPELL, Texarkana.
Criteria for the Histologic Diagnosis of Struma Lymphomatosa.
Section on Clinical Pathology, Monday, 2:30 p. m.

GEORGE E. CLARK, JR., Austin.
Glutamine Therapy of Peptic Ulcer.
Section on Internal Medicine, Monday, 2:20 p. m.

J. M. COLEMAN, Austin.
Panel Discussion: Accidents and Poisonings in Childhood.
Section on Pediatrics, Tuesday, 2:00 p. m.

LOUIS DAILY, Houston.
Subconjunctival Implantation of Gelfilm Over the Area of Inclusion of the Iris in Scleral Wound for Glaucoma.
Section on Eye, Ear, Nose, and Throat, Tuesday, 2:30 p. m.

HELEN DAVIS, Galveston.
Clinical Aspects of Diagnosis and Management of Hemophilia-Like Disorders in Children.
Section on Pediatrics, Monday, 4:30 p. m.

J. CHARLES DICKSON, Houston.
Nasal Deformities in the Newborn.
Section on Eye, Ear, Nose, and Throat, Monday, 3:00 p. m.

HAROLD DOBSON, Houston.
Poisoning: A Four Year Survey.
Section on Internal Medicine, Tuesday, 3:10 p. m.

BEN DUBILIER, Austin.
Glutamine Therapy of Peptic Ulcer.
Section on Internal Medicine, Monday, 2:20 p. m.

J. W. DUCKETT, Dallas.
Intussusception—Operative Versus Nonoperative Treatment.
Section on Surgery, Tuesday, 2:20 p. m.

HUGO ENGELHARDT, Houston.
Panel Discussion: What and How I Teach My Diabetic Patients.
Section on Internal Medicine, Tuesday, 4:00 p. m.

ALEX M. FINLAY, JR., Gainesville.
Importance of the Postvoiding Roentgenogram in Pediatric Urology.
Section on Radiology, Monday, 2:00 p. m.

C. D. FITZWILLIAM, Fort Worth.
Serum Protein Electrophoresis in a General Hospital Laboratory.
Section on Clinical Pathology, Tuesday, 3:00 p. m.

GILBERT FLETCHER, Houston.
Can the Cure Rate in Squamous Cell Carcinoma of the Uterine Cervix Be Improved?
Section on Radiology, Tuesday, 2:00 p. m.

THOMAS FOLBRE, San Antonio.
Discarding Old Ideas in Otolaryngology.
Section on Eye, Ear, Nose, and Throat, Monday, 2:30 p. m.

SANFORD GLANZ, Corpus Christi.
Treatment of Traumatic Facial Injuries.
Section on Surgery, Monday, 2:00 p. m.

JOHN V. GOODE, Dallas.
Panel Discussion: Treatment of Choice for Duodenal Ulcerations.
Section on Surgery, Tuesday, 4:10 p. m.

J. H. GREENWOOD, Temple.
Medical Management of the Psychoneurotic Patient.
Section on Internal Medicine, Monday, 2:00 p. m.

RAYMOND GREGORY, Galveston.
Panel Discussion: Pancreatitis.
Section on Surgery, Monday, 4:10 p. m.

ARTHUR GROLLMAN, Dallas.
Management of Uremia.
Section on General Practice, Monday, 5:00 p. m.

W. F. GUERRIERO, Dallas.
Present Clinical Concepts of Endometriosis.
Section on Obstetrics and Gynecology, Tuesday, 2:00 p. m.

ALBERT W. HARTMAN, San Antonio.
Panel Discussion: Pancreatitis.
Section on Surgery, Monday, 4:10 p. m.

T. HAYNES HARVILL, Dallas.
Panel Discussion: Treatment of Choice for Duodenal Ulcerations.
Section on Surgery, Tuesday, 4:10 p. m.

LLOYD R. HERSHBERGER, San Angelo.
Fungus Studies in Routine Admissions to a Tuberculosis Sanatorium.
Section on Clinical Pathology, Monday, 4:30 p. m.

JOHN J. HINCHEY, San Antonio.
Fractures of Extremities in General Practice.
Section on General Practice, Tuesday, 3:00 p. m.

CLIVE R. JOHNSON, Fort Worth.
Surgery for Arteriosclerotic Disease of the Heart, Aorta, and Ileofemoral Arteries.
Section on Surgery, Monday, 2:20 p. m.

OSCAR L. JOHNSON, Freeport.
Clinical Management of Enuresis.
Section on Pediatrics, Monday, 2:50 p. m.

PERCY E. LUECKE, JR., Dallas.
Panel Discussion: Accidents and Poisonings in Childhood.
Section on Pediatrics, Tuesday, 2:00 p. m.

CHARLES L. MARTIN, Dallas.
Is Radium Still Needed for Cancer Therapy?
Section on Radiology, Tuesday, 2:30 p. m.

J. R. MAXFIELD, JR., Dallas.
Use of Radioactive Phosphorus and Testosterone in the Treatment of Metastatic Lesions in Bone from Cancer of the Breast and Prostate.
Section on Radiology, Tuesday, 4:30 p. m.

JACK G. S. MAXFIELD, Dallas.
Use of Radioactive Phosphorus and Testosterone in the Treatment of Metastatic Lesions in Bone from Cancer of the Breast and Prostate.
Section on Radiology, Tuesday, 4:30 p. m.

HENRY C. MCDONALD, JR., Fort Worth.
The Lowly Bunion.
Section on General Practice, Tuesday, 4:30 p. m.

G. S. MCREYNOLDS, Galveston.
Carcinoma of the Larynx.
Section on Eye, Ear, Nose, and Throat, Monday, 4:00 p. m.

J. E. MILLER, Dallas.
Panel Discussion: Evaluation and Treatment of Chronic Bronchopulmonary Disease.
Section on Internal Medicine, Monday, 4:00 p. m.

PHILLIP O'B. MONTGOMERY, Dallas.
The Ultraviolet Flying Spot Television Microscope.
Section on Clinical Pathology, Tuesday, 4:00 p. m.

M. H. MORRIS, San Antonio.
Medical, Legal, and Insurance Aspects of the Treatment of Industrial Injuries.
Refresher Course Panel, Tuesday, 8:15 a. m.

ROBERT S. NELSON, Houston.
Heterotopic Pancreatic Tissue in the Stomach—Gastroscopic Features.
Section on Internal Medicine, Monday, 2:40 p. m.

FLOYD A. NORMAN, Dallas.
Panel Discussion: Accidents and Poisonings in Childhood.
Section on Pediatrics, Tuesday, 2.00 p. m.

MICHAEL K. O'HEERON, Houston.
Office Urology.
Section on General Practice, Monday, 4:30 p. m.

GEORGE PETTA, Harlingen.
Treatment of Chronic Cervicitis.
Section on Obstetrics and Gynecology, Monday, 4:00 p. m.

C. A. PIGFORD, Lubbock.
St. Louis Encephalitis—1956 Outbreak in West Texas.
Section on Public Health, Tuesday, 3:00 p. m.

EDWARD L. PRATT, Dallas.
Panel Discussion: Accidents and Poisonings in Childhood.
Section on Pediatrics, Tuesday, 2:00 p. m.

ORAN V. PREJEAN, Dallas.
Panel Discussion: Urinary Tract Problems in the Ob-Gyn Patient.
Section on Obstetrics and Gynecology, Monday, 2:00 p. m.

LESTER QUINN, Dallas.
Experimental Hypnosis in Ophthalmology.
Section on Eye, Ear, Nose, and Throat, Tuesday, 3:00 p. m.

JEROME O. RAVEL, Austin.
Glutamine Therapy of Peptic Ulcer.
Section on Internal Medicine, Monday, 2:20 p. m.

FREDERICK C. REHFELDT, Fort Worth.
Medical, Legal, and Insurance Aspects of the Treatment of Industrial Injuries.
Refresher Course Panel, Tuesday, 8:15 a. m.

ROBERT RICE, Tyler.
Nausea and Vomiting of Pregnancy.
Section on Obstetrics and Gynecology, Tuesday, 3:00 p. m.

EDWIN L. RIPPY, Dallas.
Panel Discussion: What and How I Teach My Diabetic Patients.
Section on Internal Medicine, Tuesday, 4:00 p. m.

RALEIGH R. ROSS, Austin.
Panel Discussion: Pancreatitis.
Section on Surgery, Monday, 4:10 p. m.

CAROLINE W. ROWE, Galveston.
Increasing Scope of Bronchography with Dionosil.
Section on Radiology, Monday, 5:00 p. m.

JOE C. RUDE, Austin.
Glutamine Therapy of Peptic Ulcer.
Section on Internal Medicine, Monday, 2:20 p. m.

LOUIS S. SMITH, Dallas.
Panel Discussion: Treatment of Choice for Duodenal Ulcerations.
Section on Surgery, Tuesday, 4:10 p. m.

R. N. SNIDER, Austin.
Glutamine Therapy of Peptic Ulcer.
Section on Internal Medicine, Monday, 2:20 p. m.

ARNO W. SOMMER, Temple.
Hiatal Hernia: Evaluation of Diagnostic Procedures.
Section on Radiology, Monday, 3:00 p. m.

ROBERT S. SPARKMAN, Dallas.
Trends in the Treatment of Breast Cancer.
Section on General Practice, Monday, 3:00 p. m.

CELSO C. STAPP, El Paso.
Comparison of Rolicton and Mictine as Diuretics in Edema of Pregnancy.
Section on Obstetrics and Gynecology, Monday, 5:00 p. m.

CHARLES L. STEVENSON, Temple.
Hiatal Hernia: Evaluation of Diagnostic Procedures.
Section on Radiology, Monday, 3:00 p. m.

CHARLES T. STONE, SR., Galveston.
Diagnosis and Treatment of Anemias.
Section on General Practice, Tuesday, 2:30 p. m.

JOHN R. THOMAS, Houston.
Use of P^{32} Radioactive Phosphorus in the Diagnosis of Intraocular Neoplasm—Pathologic Aspects.
Section on Clinical Pathology, Monday, 3:00 p. m.

IAN THOMPSON, Galveston.
Panel Discussion: Urinary Tract Problems in the Ob-Gyn Patient.
Section on Obstetrics and Gynecology, Monday, 2:00 p. m.

HAROLD TIVEY, Houston.
Evaluation of the Radiation Treatment of Bronchogenic Carcinoma.
Section on Radiology, Tuesday, 5:00 p. m.

JAMES W. TUNSTILL, Fort Worth.
Consideration in the Management of Certain Cardiac Arrhythmias.
Section on General Practice, Monday, 4:00 p. m.

VINCENT VERMOOTEN, Dallas.
Use of Radioactive Phosphorus and Testosterone in the Treatment of Metastatic Lesions in Bone from Cancer of Breast and Prostate.
Section on Radiology, Tuesday, 4:30 p. m.

JOHN WALL, Houston.
Panel Discussion: Carcinoma of the Cervix.
Section on Obstetrics and Gynecology, Tuesday, 4:00 p. m.

BEN J. WILSON, Dallas.
Panel Discussion: Pancreatitis.
Section on Surgery, Monday, 4:10 p. m.

R. T. WILSON, Austin.
Some Historical Items About Texas Radiology.
Section on Radiology, Monday, 4:00 p. m.

W. L. WILSON, Austin.
Expanding Occupational Health in Texas.
Section on Public Health, Tuesday, 2:30 p. m.

MEMORIAL SERVICES

Sunday, April 28, 4:30 p. m.
Junior Ballroom, Statler Hilton Hotel

GEORGE W. WALDRON, Houston, Chairman, Committee on Memorial Services, Presiding.
TAYLOR T. PICKETT, Dallas, Chairman, Local Memorial Services Committee.

1. *Organ Prelude.* MRS. DORIS WATSON, Dallas.
2. *Invocation.* THE REV. WILLIAM A. HOLMES, Associate Pastor, Highland Park Methodist Church, Dallas.
3. *Violin Solo.* MRS. NELLENE COFFEE, Dallas.
4. *Memorial Address for Deceased Physicians.* GEORGE W. WALDRON, Houston.
5. *Memorial Address for Deceased Members of the Woman's Auxiliary.* MRS. JOHN H. WOOTTERS, Houston.
6. *Vocal Duet.* MRS. VIRGINIA SEELING and MRS. DODIE GRIFFITH, Dallas.
7. *Benediction.* MR. HOLMES.

GENERAL MEETINGS

Monday, April 29, 10:00 a. m.
Regency Room, Hotel Adolphus

MILFORD O. ROUSE, Dallas, President, Presiding.

1. (10:00) *Invocation.* THE REV. JOHN LEE HARRIS, Pastor, Lakeside Baptist Church, Dallas.
2. (10:03) *Remarks of President of Texas Medical Association.* MILFORD O. ROUSE, Dallas.
3. (10:25) *Introductions.*
   Mrs. Oscar M. Marchman, Jr., Dallas, President, Woman's Auxiliary to the Dallas County Medical Society.
   Glenn D. Carlson, Dallas, President, Dallas County Medical Society.
   Ridings E. Lee, Dallas, Chairman, Committee on General Arrangements for Annual Session.
   Representatives of Related Specialty Organizations.
   Mrs. H. S. Renshaw, Fort Worth, President-Elect, Woman's Auxiliary to the Texas Medical Association.
   Denton Kerr, Houston, President-Elect, Texas Medical Association.
4. (10:40) *Greetings from President of Woman's Auxiliary to the American Medical Association.* MRS. ROBERT FLANDERS, Manchester, N. H.
5. (10:45) *Greetings from President of Woman's Auxiliary to the Southern Medical Association.* MRS. O. W. ROBINSON, Paris.
6. (10:50) *Report of President of Woman's Auxiliary to the Texas Medical Association.* MRS. RICHARD C. BELLAMY, Liberty.
7. (11:00) *Address of Member of Board of Trustees of the American Medical Association: Things of Good Report.* F. J. L. BLASINGAME, Wharton.

To be emphasized are the many positive programs of the American Medical Association, including some of the more recent ones, to acquaint the physicians and others present with the efforts of the AMA. So frequently the speaker feels that the membership does not have an insight as to the nature of the AMA's program; and this discussion may be helpful in trying to dispell the commonly accepted propaganda that the AMA is a "do-nothing" group.

8. (11:30) *Recent Trends in Surgery of the Gallbladder and Common Duct.* WARREN H. COLE, Chicago, Ill.

Chronic cholecystitis and cholelithiasis remain common and because medical therapy is so ineffective must be treated by operation. Asymptomatic gallstones should be removed except in patients who have no more than 5 to 10 years' additional life expectancy. Residual symptoms following cholecystectomy are common, as are diagnostic errors comprising lesions not related to the biliary tract. Residual stones in the common duct and fibrosis of the sphincter of Oddi are common explanations for failure of cure.

Tuesday, April 30, 10:00 a. m.
Regency Room, Hotel Adolphus

MILFORD O. ROUSE, Dallas, President, Presiding.

1. (10:00) *How to Avoid "Greetings" from the Tissue Committee for Your Gynecologic Surgery.* ROGER B. SCOTT, Cleveland, Ohio.

The following recommendations will be made: (1) A philosophy of conservative observation, when malignancy is not suspected, to evaluate fully the gynecologic findings with the symptoms and the emotional and environmental status of the patient. (2) A full written permanent accounting of these findings with records of the personal physician. (3) An understanding that there are many approaches to and interpretations of what is the proper medical treatment. (4) A realization that this is not a "Big Brother" syndrome.

2. (10:30) *The Cystic Ovary—Surgical or Non-Surgical?* JOHN R. SCHENKEN, Omaha, Neb.

"The normal anatomy of the gland should be thoroughly studied at the present day when so many ovaries are removed for real or suspected disease. . . ." This statement, made in 1887 by Dr. Henry Coe, was reiterated almost verbatim by Dr. Norman F. Miller in 1947. Does this mean that no progress has been made in the recognition of the diseased ovary by the surgeon at the time of operation? This paper will present data on recognition of cystic ovarian disease.

3. *Announcements of Scientific Exhibit Awards.*

4. (11:00) *Diagnosis and Management of the Edematous Patient.* LAURENCE B. ELLIS, Boston, Mass.

The underlying mechanisms common to all types of edema will be briefly discussed including the relative importance of hydrostatic pressure, colloid osmotic pressure, capillary permeability, and lymphatic drainage, as well as renal pathophysiology and the various mechanisms by which sodium is retained in the body. The differentiation between various types of edema will be covered, and a rational regimen of therapy will be outlined.

5. (11:30) *Chronic Ulcerative Colitis.* CALVIN M. SMYTH, Abington, Pa.

This is a killing disease which becomes of surgical importance by reason of its complications. Over the years the surgical approach has progressed all the way from appendicostomy to total colectomy in one stage. The selection of patients for operation, the decision as to whether the operation shall be done in one stage or multiple stages, the management of the ileostomy, and the complications following operation will be discussed.

Wednesday, May 1, 10:00 a. m.

Regency Room, Hotel Adolphus

MILFORD O. ROUSE, Dallas, President, Presiding.

1. (10:00) *Care of the Aged Infirm—Planning for the Future.* WILSON G. SMILLIE, New York, N. Y.

A new type of facility for caring for the aged—a combination of convalescent home and rehabilitation center—should be developed in each community. Foster homes for indigent semi-ambulatory old people may be successful, and day care centers for the aged are useful in larger cities. The general hospital is not the proper place for care of illness of the aged; the nursing home has a definite but limited function for certain types of illness.

2. (10:30) *Ophthalmologic-Optometric Relations.* A. D. RUEDEMANN, SR., Detroit, Mich.

At no time in ophthalmic history have the ophthalmologists' relations with the medical profession been more important than now as well as their relationship to the practitioner in optometry and with the dispensing optician. This will be discussed from the viewpoint of what is best for the patient as well as the ophthalmologist.

3. (11:00) *Auto-Crash Injury Research* (motion picture). PRESTON A. WADE, New York, N. Y.

This paper deals with the development of research in unusual survivals in suicide jumps and accidental falls and a history of the beginning of crash injury research in airplanes during wartime including treatment of the pilot's cabin in fighter planes. A movie of the work done at Cornell University Medical College in investigating the interior design of automobiles will be shown and the automobile manufacturers' application of the safety factors described.

4. (11:30) *Physiologic and Diagnostic Significance of Some Common Signs and Symptoms.* JOHN B. HICKAM, Durham, N. C.

With advances in medical and related sciences, new disease entities are continually being uncovered. Although the basic techniques of the history and physical examination change only slowly with time, it is usually possible to find ways to apply these bedside methods to the diagnosis of newly discovered disorders. To do this successfully, doctors must be ready to revise or enlarge their interpretation of common signs and symptoms.

DAILY SCHEDULE
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GENERAL MEETING LUNCHEON

Wednesday, May 1, 12:30 p. m.

Terrace, Baker Hotel

MILFORD O. ROUSE, Dallas, President, Presiding.

1. (12:30) *Luncheon.*
Invocation.
THE REV. WILLIAM H. DICKINSON, JR., Assistant Pastor, Highland Park Methodist Church, Dallas.

2. (1:15) *Introductions.*
General Practitioner of the Year.
President-Elect, Texas Medical Association.
President-Elect, Woman's Auxiliary to the Texas Medical Association.
Civic Guests.

3. (1:30) *Presentation of Anson Jones Award for Distinguished Lay Medical Reporting.*

4. (1:35) *Report of Activities of House of Delegates.* H. O. DEATON, Fort Worth, Speaker.

5. (1:45) *Address of Incoming President: The Physicians' Positive Program.* DENTON KERR, Houston.

6. (1:55) *Presentation of Gavel and of Past Presidents' Medallion.*

7. (2:00) *To be announced.* MR. ROBERT B. ANDERSON, New York, N. Y.

REFRESHER COURSES

A refresher course program, presented for the first time by the Texas Medical Association at its 1955 annual session in Fort Worth, is again scheduled as a part of the convention program. Twenty-four refresher courses, each consisting of an hour of lecture by an outstanding national medical leader or panel of experts plus a half hour of questions and answers, are being offered. Primarily for the benefit of physicians doing general practice but also of value to specialists, the courses, like the rest of the scientific program at the annual session, will be granted informal hour-for-hour credit by the Texas Academy of General Practice.

Courses are scheduled for 8:15 to 9:45 a. m., Monday through Wednesday, April 29-May 1, and a physician may attend as many as three courses, one each day. Attendance is limited to approximately 50 persons, with admission only by ticket, for which there is no charge. Tickets will be available at the Association's registration desk in Hotel Adolphus throughout the meeting beginning Saturday, April 27, except for the period between 7:45 and 10:00 a. m. on Monday, Tuesday, and Wednesday, when they will be distributed on the mezzanine floor of the Baker Hotel, where all of the courses will be given.

Members of the Texas Medical Association will be given priority for tickets. Residents, interns, and others who are not members of the Association may attend the courses as space is available. They may get tickets the morning of the course and from 5 to 6 p. m. on the afternoon preceding.

Physicians are urged to have in mind first, second, and third choices for each day and to return to the registration desk any tickets they do not intend to use.

The list of courses and instructors, along with the room assignments, follows.

MONDAY, APRIL 29, 8:15 TO 9:45 A. M.

Baker Hotel, Mezzanine Floor

M-1 *Treatment of Common Skin Diseases.*
LOUIS A. BRUNSTING, Rochester, Minn.

(Texas Room)

This discussion will be limited to (a) some common forms of eczema and (b) reactions encountered in dealing with the many new drugs that have been introduced into general practice during the past decade. The terms eczema and dermatitis mean about the same thing. The author will discuss forms of dermatitis that frequently are localized to certain regions of the body and that are familiar to all physicians. The simplest rules of management will be laid down.

M-2 *Immediate Management of Major Chest Injuries.*
THOMAS H. BURFORD, St. Louis, Mo.

(Banquet Room 1)

M-3 *New Methods of Treatment of Behavioral Disorder in the Aged.*
D. EWEN CAMERON, Montreal, Canada.

(Banquet Room 3)

Findings of a mental health clinic for the aged, a division of the Gerontologic Unit of the Allan Memorial Institute, will be discussed. The primary problems are personal and emotional, not organic as one is apt to assume. A second major finding is the importance of disorganization in the origin of symptoms; treatment is directed to the alleviation of the intercurrent stress. Another group of patients yields well to endocrinological and biochemical agents.

M-4 *Surgical Lesions of the Thyroid.*
WARREN H. COLE, Chicago, Ill.

(English Room)

Nontoxic nodular goiter and carcinoma of the thyroid are definitely surgical lesions, but toxic diffuse goiter may be considered either medical or surgical since many groups utilize thyroidectomy for this lesion whereas others use radioactive iodine. Elimination of the thyrotoxicosis can be achieved effectively in toxic diffuse goiter by radioactive iodine, but the instructor still favors thyroidectomy largely because of the slight possibility the radioactive iodine is not entirely innocuous.

M-5 *Pain in the Anorectal Region from the Standpoint of Causation.* JOHN R. HILL, Rochester, Minn.

(Tally Ho Room)

Pain in the anorectal region may arise from any of a number of causes. The attempt to determine these causes should begin, of course, with the thorough taking of the patient's history. This should be followed by painstaking examination. Then, with all the data in possession of the physician, the pain can be evaluated accurately. Such a systematic and thorough program will enable the physician to institute proper treatment or withhold unwarranted treatment.

M-6 *Management of the Nervous Patient.*
WINGATE M. JOHNSON, Winston-Salem, N. C.

(Camellia Room)

The presentation will be an informal talk about the management of the large group of patients with various symptoms for which no organic basis can be found and who are labeled "nervous" or "neurotic." A number of case histories illustrating the various types of patients will be discussed briefly.

M-7 *Helpful Hints for Everyday Practice.*
ARTHUR C. JONES, Boise, Idaho.

(Banquet Room 5)

The course will cover the training of a receptionist regardless of the number of doctors in the office, interest in the patient and concern over unnecessary delays, gentleness in examination, precautions before using cocaine, care in using analine oil in 10 per cent cocaine for ear drum anesthesia, treatment of early head colds, the cause and treatment of hypertrophic rhinitis and of certain types of ear secretions, and other subjects of interest.

M-8 *Tumors in Children.*
JOHN R. SCHENKEN, Omaha, Neb.

(Banquet Room 4)

The elimination of contagious and infectious diseases as an important cause of death in childhood focuses much greater attention upon malignancies in this age group. Leukemia, tumors of the brain, and tumors of the kidney and adrenal glands make up about 60 per cent of all malignancies in children. Emphasis will be placed on the natural history of these malignancies and particular attention will be paid to the importance of an accurate diagnosis of leukemia.

M-9 *Current Trends in Malpractice.*
MR. PHILIP R. OVERTON, Austin, Moderator;
Technical Assault or Negligence?
MR. HALL E. TIMANUS, Houston;
Professional Liability from the Underwriter's Point of View.
MR. HARRY W. GINTY, Fort Wayne, Ind.;
Survey Aspects of Malpractice.
MR. BERNARD D. HIRSH, Chicago, Ill.; and
Defense of Malpractice Cases.
MR. JOSH H. GROCE, San Antonio.

(Banquet Room 2)

TUESDAY, APRIL 30, 8:15 TO 9:45 A. M.

Baker Hotel, Mezzanine Floor

T-11 *Risks and Rewards in the Use of the Fluoroscope.*
RICHARD H. CHAMBERLAIN, Philadelphia, Pa.

(Tally Ho Room)

The fluoroscope has been widely used by general practitioners, internists, chest specialists, and others besides radiologic specialists, particularly for examinations of the chest. This popularity has been well deserved. Although details are often better demonstrated in roentgenogram studies, the fluoroscope is readily available, seems simple to use, and gives certain types of information more readily than film studies. Modern methods of safety and protection control as well as acquiring the most information will be discussed.

T-12 *Medical Implications of School Failure.*
REYNOLD A. JENSEN, Minneapolis, Minn.

(Banquet Room 4)

To fail is a threat which plagues the young or old, particularly when it may involve a major activity. Such a major activity for the school child (ages 6 to 18 years) is school work. A frequent but often overlooked tendency to solve this dilemma is for the child to develop symptoms suggestive of illness. Unless recognized, medical management may further complicate the child's life. The problem's importance in medical practice will be stressed.

T-13 *Fractures Which May Be Safely Handled in the Office of the General Practitioner.*
H. RELTON MCCARROLL, St. Louis, Mo.

(Texas Room)

This discussion will include those fractures which can be handled through office practice, either with the patient ambulatory or with partial bed rest at home. Certain fractures of the clavicle, upper humerus, forearm, elbow, wrist, and hand; certain minimal fractures of the spine; and some fractures of the leg, ankle, and foot will be covered. In some instances fractures also will be discussed which should not be handled by the general practitioner.

T-14 *Management of Cirrhosis of the Liver.*
HENRY B. MULHOLLAND, Charlottesville, Va.

(Banquet Room 2)

This subject will be presented by a discussion of the various types of experimental cirrhosis of the liver and their possible application to human cirrhosis. A suggested classification of cirrhosis will be presented. The relationship of chronic alcoholism to cirrhosis of the liver will be discussed, and the fact brought out that cirrhosis does occur in the absence of alcoholism. Symptoms, signs, and therapy with the use of glutamic acid and glucose will be discussed.

T-15 *Unilateral Exophthalmos.*
A. D. RUEDEMANN, SR., Detroit, Mich.

(Camellia Room)

Diagnosis of unilateral exophthalmos is done first by excluding the possibility of bilateral exophthalmos and second by differentiating the inflammatory from the noninflammatory! The mode and the time of onset are important. Finally, no surgery should be entered into until the final tentative diagnosis is determined; there should be no exploratory orbital invasion.

T-16 *Safety Factors in Anesthesia.*
ROBERT W. VIRTUE, Denver, Colo.

(Banquet Room 1)

A few situations which are essential for safe anesthesia will be stressed. A little used device for insurance of an airway for a patient

with a tightly clenched jaw is a nasopharyngeal airway. A bag, oxygen, and a mask, or a Kreiselman resuscitator should be available before one gives any anesthetic. Newer drugs that affect anesthetic procedures such as chlorpromazine and cortisone will be discussed.

T-17 *Surgical Complications of the Lower Extremities in Diabetes.*
FREDERICK W. WILLIAMS, New York, N. Y.

(Banquet Room 3)

The course will present a simple practical approach to the management of diabetes, surgically complicated. It will also include a classification of the lower extremity lesions arrived at by simple clinical methods by which one may determine the level of amputation if indicated.

T-18 *Anemias in Infancy and Childhood.*
WOLF W. ZUELZER, Detroit, Mich.

(Banquet Room 5)

T-19 *Medical, Legal, and Insurance Aspects of the Treatment of Industrial Injuries.*
FREDERICK C. REHFELDT, Fort Worth, Moderatot;
MR. SMITH PETTIGREW, Dallas (Insurance);
MR. GEORGE P. GARDERE, Dallas (Legal); and
M. H. MORRIS, San Antonio (Medical).

(English Room)

The panel will explore the problem of estimating disability and of preparing reports of injury and will review the physician's contribution to the effectiveness of the Workmen's Compensation Law and his obligation under the law. Most of the course will cover reports of injury, estimates of disability, and the basis for computing and collecting professional charges. The lawyer-panelist will present the legal pitfalls of the report of injury and of testimony.

WEDNESDAY, MAY 1, 8:15 TO 9:45 A. M.

Baker Hotel, Mezzanine Floor

W-21 *Long Term Management of Coronary Disease, Including the Place of Surgery and Other Radical Treatments.* LAURENCE B. ELLIS, Boston, Mass.

(English Room)

In this refresher course the practical management of patients suffering from chronic coronary disease will be discussed in respect to general measures as well as drug therapy. The place of dietary treatment, long-term anticoagulant therapy, radioactive iodine, and surgery also will be covered.

W-22 *An Internist's View of the Optic Fundus.*
JOHN B. HICKAM, Durham, N. C.

(Tally Ho Room)

The presentation will consist of an illustrated review of the more important abnormalities of the optic fundus which occur in systemic disorders. The discussion will include reference to the pathologic mechanisms underlying these changes, as they are presently understood. Particular emphasis will be laid on the application of this knowledge to the practical problems of diagnosis and prognosis.

W-23 *Abnormal Uterine Bleeding with Particular Reference to Dysfunctional Type.*
ROGER B. SCOTT, Cleveland, Ohio.

(Banquet Room 1)

Two peaks of dysfunctional uterine bleeding are generally recognized—one at the beginning of menstrual function and another near the end. The latter peak accounts for most of these problems. A diagnosis of dysfunctional uterine bleeding can be made only after all organic causes have been excluded, and these causes will be discussed as to incidences, importance, and mechanism. Such diagnostic tools and techniques will be discussed as history, examination, laboratory tests, and Papanicolaou smears.

W-24 *Differential Diagnosis of Acute Abdominal Conditions.* CALVIN M. SMYTH, Abington, Pa.

(Banquet Room 2)

Acute abdominal conditions requiring surgical intervention may be divided roughly into perforating lesions, obstructive lesions, lesions producing massive hemorrhage, and trauma. In the differential diagnosis it is important that certain medical conditions not requiring or even made worse by surgical intervention be recognized. The extent to which these conditions are discussed will depend upon available time.

W-25 *Anesthesia by the General Practitioner.*
GEORGE J. THOMAS, Pittsburgh, Pa.

(Banquet Room 3)

The evaluation of the patient for surgical and anesthetic risks, the preoperative preparation, and the value of adequate premedication will be discussed in detail. The various anesthetic agents and techniques will be discussed as to their advantages, disadvantages, indications, and contraindications.

W-26 *Treatment of Fractures in Children.*
PRESTON A. WADE, New York, N. Y.

(Banquet Room 5)

Fractures in children are different from those in adults; the texture of children's bones is different and the growth potentiality is great, so that considerable degrees of displacement and shortenings can be expected to be corrected in time. The very fact that epiphyses are growth centers makes them danger spots to injury, particularly in the elbow where most exceptions to our general rules occur. Children's bones invariably heal, particularly the long tubular bones. Nonunion is rare.

SECTION MEETINGS

SECTION ON GENERAL PRACTICE

Monday, April 29, 2:00 to 5:30 p. m.

Regency Room, Hotel Adolphus

Chairman—George V. Launey, Dallas.
Secretary—Joseph H. Steger, Fort Worth.

1. (2:00) *Fire and Explosive Hazards in Hospitals and Their Control.*
GEORGE J. THOMAS, Pittsburgh, Pa.

The demonstration will consist of the following: (1) the value of conductive floors, efficient grounding, and wet towels in minimizing explosion hazards in anesthetizing locations; (2) electrostatic charges igniting flammable anesthetic mixtures; (3) the danger of various types of material in producing electrostatic charges of sufficient intensity in igniting flammable anesthetic agents; (4) the danger of nonconductive mattress on operating and delivery room tables; and (5) the value of nonflammable anesthetic agents in the prevention of fire and explosion in hospitals.

2. (2:30) *Emergencies in Anesthesia: Let's Stress Prevention.* ROBERT W. VIRTUE, Denver, Colo.

Most anesthetic emergencies are avoidable. The troubles that arise are largely due to (1) lack of movement of oxygen into the patient; (2) lack of movement of carbon dioxide from the patient; and (3) overdose of drugs. The first of these three factors has been stressed for years. We are becoming better aware of the importance of the latter two factors.

Questions and Answers.

3. (3:00) *Trends in the Treatment of Breast Cancer.*
ROBERT S. SPARKMAN, Dallas.

The value of the standard radical mastectomy, with or without irradiation, for cancer of the breast is now being questioned by those who feel that it is not radical enough and by those who feel that it is too radical. An attempt will be made to review critically and to evaluate the various methods of therapy currently in use.

Questions and Answers.

4. (3:30) *Intermission to Visit Exhibits.*

5. (4:00) *Considerations in the Management of Certain Cardiac Arrhythmias.*
JAMES W. TUNSTILL, Fort Worth.

When successfully terminated the paroxysmal cardiac arrhythmias afford the practitioner the satisfaction of dramatic accomplishment. Toward this goal the therapeutic armamentarium has steadily increased, but divergent views in therapy still exist. A condensation of these various views will be presented. Diuretics, various hypopotassemic states, and subclinical overdosage of digitalis may be important etiologically in some of the arrhythmias. Not all the arrhythmias require treatment. Prompt therapy in others may prove lifesaving.

Questions and Answers.

6. (4:30) *Office Urology.*
MICHAEL K. O'HEERON, Houston.

The ambulatory patient with a urologic problem seeks the services of his personal physician because of a distressing symptom. The cardinal symptoms will be discussed from the standpoint of the mechanism producing them, their significance, and the office techniques and procedures suitable for their study. Important principles are the available techniques and aids for the immediate relief of the distress and the arrival at an exact diagnosis, allowing specific therapy to be administered.

Questions and Answers.

7. (5:00) *Management of Uremia.*
ARTHUR GROLLMAN, Dallas.

The rational management of a patient manifesting an elevation of the nonprotein nitrogen level of the blood necessitates first the determination as to whether the condition is due to acute renal failure or chronic renal insufficiency or whether it is extrarenal in origin. Treatment of each type of case will be covered.

Questions and Answers.

Tuesday, April 30, 2:00 to 5:30 p. m.

Regency Room, Hotel Adolphus

8. (2:00) *Abscesses and Sinuses in the Perianal Region: Differential Diagnosis and Treatment.*
JOHN R. HILL, Rochester, Minn.

When the physician sees a patient who has an abscess or a draining sinus in the perianal region, the burden is on him to prove that a fistula is not forming or does not already exist. In this paper anal fistulas, as well as other causes of perianal abscesses and sinuses, will be discussed.

Questions and Answers.

9. (2:30) *Diagnosis and Treatment of Anemias.*
CHARLES T. STONE, SR., Galveston.

Anemia in one form or another constitutes an important problem for the physician. In order that he may adequately manage patients with anemia it is essential that a knowledge of the type and cause of the condition in each case be obtained. An outline of the various types of anemia together with methods of diagnosis and treatment will be presented.

Questions and Answers.

10. (3:00) *Fractures of Extremities in General Practice.*
JOHN J. HINCHEY, San Antonio.

While each fracture presents its own individual problem, most fractures of extremities can be handled according to certain general basic principles. A physician who follows these principles will be able to handle a higher percentage of fractures of the extremities with excellent end results. More common fractures will be covered utilizing lantern slides.

Questions and Answers.

11. (3:30) *Intermission to Visit Exhibits.*

12. (4:00) *Vagotomy and Gastrectomy in the Treatment of Duodenal Ulcer.*
J. PEYTON BARNES, Houston.

The paper will cover the author's personal experience with more than 50 cases. Several technical steps have been worked out to improve the ultimate results of the operation, and the technical steps that make the operation itself safer and easier to perform will be described, as well as preoperative and postoperative care. A brief discussion of pertinent physiologic points also will be included.

Questions and Answers.

13. (4:30) *The Lowly Bunion.*
HENRY C. MCDONALD, JR., Fort Worth.

Definition and etiology of the bunion will emphasize that this is not a bony exostosis but a displacement of bony elements allowed by defective soft tissues. Treatment of bunions and allied conditions, such as foot strain and Morton's neuroma, will be ditected at the main soft tissue disturbance, that is tight plantar flexor mechanism (tight heel cords). Conservative care will be emphasized and approximately 300 cases analyzed, showing high percentage of success.

Questions and Answers.

14. (5:00) *Some Ophthalmic Conditions of Interest to General Practitioners and Pediatricians.*
A. D. RUEDEMANN, SR., Detroit, Mich.

Low degrees of endocrine disease in all stages of life are frequently associated with eye disturbance. Blood dyscrasia with associated deficiency in the blood vessels is another important condition. Differential counts plus capillary studies are of importance first to the general man and the pediatrician.

Questions and Answers.

SECTION ON INTERNAL MEDICINE

Monday, April 29, 2:00 to 5:00 p. m.

Donish Room, Hotel Adolphus

Chairman—Donald W. Seldin, Dallas.

Secretary—Dolph L. Curb, Houston.

1. (2:00) *Medical Management of the Psychoneurotic Patient.* J. H. GREENWOOD, Temple.

Most of the psychoneurotic patient's symptoms are results of physiologic alterations caused by emotional stresses. Basically, etiology concerns conditioned reflexes, cyclothymia, and autonomic unrest. Time, understanding, release of emotion, persuasion, reassurance, and explanation are tools used in treatment. As a rule, drugs, shock, and/or carbon dioxide therapy are not indicated.

2. (2:20) *Glutamine Therapy of Peptic Ulcer.*
JEROME O. RAVEL, WILLIAM SHIVE, Ph.D., R. N. SNIDER, BEN DUBILIER, JOE C. RUDE, and GEORGE E. CLARK, JR., Austin.

Cheney reported raw cabbage juice contained a factor effective in treatment of peptic ulcer, and variable results were obtained in attempting to repeat this work. A heat-labile factor that occurs in variable amounts in cabbage juice has been identified as glutamine. Twenty ulcer patients were treated with glutamine and bland diet. A double blind study using antispasmodics, antacids, diet, and either glutamine or lactose was accomplished. Results indicate glutamine may be an effective treatment of peptic ulcer.

Discussion—BELTON G. GRIFFIN, Houston.

3. (2:40) *Heterotopic Pancreatic Tissue in the Stomach—Gastroscopic Features.*
ROBERT S. NELSON, Houston, and LT. COL. NORMAN M. SCOTT, JR., San Antonio.

Heterotopic pancreatic tissue in the stomach no longer can be considered a rarity. This paper will describe 4 cases, in 3 of which the tumor was visualized preoperatively by gastroscopy. Color photographs taken through the gastroscope, the first reported, demonstrated that these tumors elevated the mucosa, might occur in conjunction with one of the rugae, and did not interfere with antral peristalsis. These tumors may be removed by wedge resection with complete cure of symptoms.

Discussion—EDWARD J. LEFEBER, Galveston.

4. (3:00) *Intermission to Visit Exhibits.*

5. (3:30) *Differential Diagnosis of Cardiac and Pulmonary Dyspnea.*
LAURENCE B. ELLIS, Boston, Mass.

The mechanisms by which dyspnea is produced in both pulmonary disease and cardiac disease will be discussed in respect to various pulmonary function measurements, including abnormalities in ventilation, impairment of diffusion, pulmonary hypertension, increased work of breathing, and the specific effect of changes in blood flow.

6. (4:00) *Panel Discussion: Evaluation and Treatment of Chronic Bronchopulmonary Disease.*
JOHN S. CHAPMAN, Dallas, Moderator; JOHN B. HICKAM, Durham, N. C.; THOMAS H. BURFORD, St. Louis, Mo.; and J. E. MILLER, Dallas.

Tuesday, April 30, 2:00 to 5:00 p. m.

Donish Room, Hotel Adolphus

7. (2:00) *Gastric Lesions, Benign and Malignant; Diagnostic Approach, Including Gastric Cytology.*
WILLIAM T. ARNOLD, Houston.

The clinical and roentgen examinations for gastric cancer have been the best diagnostic approach in the past, but they left many things to be desired in differentiation of benign and malignant lesions and further earlier diagnosis. The approach at Hermann Hospital has been to combine clinical evaluation, roentgen ray, gastric analysis, gastroscopy, esophagoscopy, and gastric cytology. Such an approach has given a 96 to 98 per cent accuracy of correctness of diagnosis by certain investigators.

8. (2:20) *Pathologic Physiology of Pulmonary Emphysema in Relation to Therapy.*
JOHN B. HICKAM, Durham, N. C.

New information recently has been obtained on the manner in which emphysematous changes affect cardiopulmonary function. Some of this information can be applied to advantage in the practical management of the disorder. It has also improved our ability to make an early diagnosis of certain of the complications of emphysema, particularly congestive heart failure and carbon dioxide narcosis. The presentation will summarize pertinent aspects of recent advances in understanding and indicate how they apply to the management of the disease.

9. (2:50) *Use of Exercise in Evaluation of Patients for Surgery of the Mitral Valve.*
CARLETON B. CHAPMAN, Dallas.

Special exercise tests, employing a motor driven treadmill, have been evolved for determination of the pumping capacity of the heart in normal humans and in patients with heart disease. The test, which employs carefully graded exercise loads, determines the maximal uptake of oxygen per minute and is a reasonable index to the maximal pumping capacity of the heart. It is of great assistance in identifying patients who will derive benefit from valvular surgery.

Discussion: Col. WELDON J. WALKER, San Antonio.

10. (3:10) *Poisoning: A Four Year Survey.*
HAROLD DOBSON, Houston.

A survey of the poisonings treated at Jefferson Davis Hospital shows that the largest group is accidental poisoning in the 1 to 3 year age group. Ingestion of hydrocarbons is most frequently encountered with salicylate and heavy metals being next. In adults, suicides, addiction, and habituation account for the bulk of poisonings. Various factors involved will be discussed.

Discussion: C. A. NAU, Galveston.

11. (3:30) *Intermission to Visit Exhibits.*

12. (4:00) *Panel Discussion: What and How I Teach My Diabetic Patients.*
EDWIN L. RIPPY, Dallas, Moderator;
FREDERICK W. WILLIAMS, New York, N. Y.;
HENRY B. MULHOLLAND, Charlottesville, Va.;
and HUGO ENGELHARDT, Houston.

SECTION ON SURGERY

Monday, April 29, 2:00 to 5:00 p. m.

Crystal Ballroom, Baker Hotel

Chairman—Walter B. King, Jr., Waco.
Secretary—W. H. Pickett, Dallas.

1. (2:00) *Treatment of Traumatic Facial Injuries.*
SANFORD GLANZ, Corpus Christi.

With the increase of severe and disfiguring facial injuries, a timely discussion of the principles of primary treatment and reparative surgery will be presented. Recognition and care of complications as well as management of injuries to vital structures, such as eyelids, nose, lips, and ears, in addition to primary surgical repair of facial injuries will be discussed.

2. (2:20) *Surgery for Arteriosclerotic Disease of the Heart, Aorta, and Ileofemoral Arteries.*
CLIVE R. JOHNSON, Fort Worth.

Recent advancement in surgery for arteriosclerotic processes is very important because here one finds the largest and most serious category of cardiovascular disorders. Pathologically these processes are predominantly occlusive and/or aneurysmal; these with the pathophysiology will be discussed. Resection and homograft replacement for lesions of the aorta and its branches have given gratifying results. The improvement after talc cardiopexy in patients disabled by coronary insufficiency has been significant. Illustrative cases from the author's experience will be presented.

3. (2:40) *Cancer of the Rectum.*
CALVIN M. SMYTH, Abington, Pa.

Cancer of the rectum should be the one cancer in which a positive diagnosis can be made in the early stages of the disease in practically every case. This condition is most often missed because it is not thought of. Any patient with rectal bleeding is entitled to investigation with the proctosigmoidoscope, which can be made in the office of any general practitioner. The history of surgery in these cases will be discussed in some detail.

4. (3:10) *Intermission to Visit Exhibits.*

5. (3:40) *Surgical Aspects of Splenic Disease.*
WARREN H. COLE, Chicago, Ill.

Although it has been known for years that splenectomy yields very good results in familial hemolytic anemia and thrombocytopenic purpura, it has not been until the past few years that we have learned good results are often obtained in acquired hemolytic anemia and secondary purpura. This paper will include results of a study of 137 patients having splenectomy for splenic disease, 54 of whom had hemolytic anemia.

6. (4:10) *Panel Discussion: Pancreatitis.*
ALBERT W. HARTMAN, San Antonio, Moderator;
BEN J. WILSON, Dallas;
RAYMOND GREGORY, Galveston; and
RALEIGH R. ROSS, Austin.

This panel, composed of surgeons and internists, active and familiar with the experimental, research, and clinical manifestations of pancreatitis, will discuss the various phases of the process, including historical background, experimental developments, etiology, clinical manifestations, treatment, prognosis, and complications. Chronic or calcareous pancreatitis in addition to acute or edematous pancreatitis will be discussed. A period for questions from the audience will follow.

Tuesday, April 30, 2:00 to 5:00 p. m.

Crystal Ballroom, Baker Hotel

7. (2:00) *Indications for Conservative Resection in Carcinoma of the Lung.*
G. V. BRINDLEY, JR., Temple.

There is considerable difference of opinion regarding the preferable surgical treatment for carcinoma of the bronchus. Many surgeons believe that radical pneumonectomy offers the optimum prognosis since it permits the best opportunity for complete removal of all the tumor. Other surgeons believe that the prognosis following lobectomy is almost as good and pulmonary function is much better. Factors to be considered in evaluating this question will be discussed, as will current indications for lobectomy.

8. (2:20) *Intussusception—Operative Versus Nonoperative Treatment.*
J. W. DUCKETT, Dallas.

For many years surgical treatment of acute intussusception has been practiced successfully. Recently, Mark Ravitch demonstrated that a properly controlled nonoperative method may be used with equal success and without the hazards of operation. Unfortunately the Ravitch method of reduction of intussusception by barium enema has been widely misused. The advantages and disadvantages of both methods will be discussed.

9. (2:40) *The Problem of the Mediastinal Tumor.*
THOMAS H. BURFORD, St. Louis, Mo.

10. (3:10) *Intermission to Visit Exhibits.*

11. (3:40) *Blood Volume and Blood Replacement During Surgery.* ROBERT W. VIRTUE, Denver, Colo.

Crucial decisions must be made when one gives blood to a surgical patient. Some risk is involved even though the blood bank is efficient. The preoperative condition of the patient is too frequently not studied with regard to circulating blood volume. There are some definite criteria for administering blood. Complications after giving large quantities of blood are too numerous.

12. (4:10) *Panel Discussion: Treatment of Choice for Duodenal Ulcerations.*
JOHN V. GOODE, Dallas, Moderator;
CALVIN M. SMYTH, Abington, Pa.;
T. HAYNES HARVILL, Dallas; and
LOUIS S. SMITH, Dallas.

This panel will concentrate on the controversial aspects of the duodenal ulcer problem rather than on surgical techniques. The question of when to operate on a patient with duodenal ulceration will be discussed rather than how to operate upon such a patient. Postoperative management of the ulcer patient, including the "dump" syndrome, also will be covered.

SECTION ON OBSTETRICS AND GYNECOLOGY

Monday, April 29, 2:00 to 5:30 p. m.

Cactus Room, Hotel Adolphus

Chairman—J. L. Jinkins, Jr., Galveston.

Secretary—Frank J. Lee, Wichita Falls.

1. (2:00) *Panel Discussion: Urinary Tract Problems in the Ob-Gyn Patient.*
ROGER B. SCOTT, Cleveland, Ohio, Moderator;
ORAN V. PREJEAN, Dallas;
COL. JOHN SIMPSON, San Antonio;
and IAN THOMPSON, Galveston.

A panel discussion will include the anatomy, physiology, and treatment of difficult urologic conditions which complicate or are complications of the obstetric and gynecologic patient.

2. (3:30) *Intermission to Visit Exhibits.*

3. (4:00) *Treatment of Chronic Cervicitis.*
GEORGE PETTA, Harlingen.

Chronic cervicitis is one of the most common conditions in the female. It is responsible for many genitourinary complaints. The surgical treatment of this condition, in the office as well as in the hospital, will be discussed. Postoperative hemorrhage is one of the most important complications.

Discussion—SAM ALEXANDER, Dallas.

4. (4:30) *Some Problems in Pediatric and Adolescent Gynecology.*
ROGER B. SCOTT, Cleveland, Ohio.

The gynecologic diseases and disorders in this rather flexible age group are little understood or reported! The patient and the confused and usually over-solicitous parent present a dilemma to any physician. The emotional reactions and sequelae must neither be over-rated nor under-rated. The approach and methods of examination will be presented, as well as such representative problems as agglutinative vulvitis, vulvitis and vaginitis, foreign bodies, precocious puberty and intersexuality, ovarian tumors and abdominal masses, and congenital anomalies.

5. (5:00) *Comparison of Rolicton and Mictine as Diuretics in Edema of Pregnancy.*
CELSO C. STAPP, El Paso.

A comparison of Rolicton and Mictine (oral nonmercurial diuretics) was made with 10 women in the third trimester of pregnancy who had no organic disease and had edema. Most of the patients had accompanying hypertension and some had albuminuria. Both Rolicton and Mictine were found to be effective in dosages given, though Mictine was more effective than Rolicton. Both drugs were free from severe reactions; only occasional mild reactions were noted.

Discussion—DENNIS VOULGARIS, Wharton.

Tuesday, April 30, 2:00 to 5:30 p. m.

Cactus Room, Hotel Adolphus

6. (2:00) *Present Clinical Concepts of Endometriosis.*
W. F. GUERRIERO, Dallas.

A review of the present concepts of endometriosis will be given with the analysis of a large series of cases from Baylor Hospital in Dallas. The review will be concerned with the physician's practical management and diagnosis of this condition, which is becoming more prevalent and more of a problem. Some newer concepts of the management of endometriosis and their acceptance in gynecologic circles will be given.

Discussion—W. T. KABLE, Wichita Falls.

7. (2:30) *Postmenopausal Medical Gynecology.*
NOEL R. BAILEY, Fort Worth.

A practical approach to nonsurgical postmenopausal problems will be discussed. Physiology will be considered briefly and only as related to the disorders. The infections will be reviewed in passing, but more emphasis will be placed on trophic changes, allergies, and general systemic problems. Suggestions regarding therapy and diagnosis will be made.

Discussion—E. B. LOKEY, Amarillo.

8. (3:00) *Nausea and Vomiting of Pregnancy.*
ROBERT RICE, Tyler.

Nausea with or without vomiting, occurring in approximately 50 per cent of women pregnant in the first trimester, may be of varying degrees of seriousness but, in most cases, requires some attention and treatment. Some of the drugs presently employed will be discussed with special notice to their side effects. Hospital care with parenteral fluid and electrolyte therapy is a valuable adjunct in the severe cases, and the psychosomatic aspect of the condition will be touched upon.

Discussion—R. G. SWEARINGEN, Corpus Christi.

9. (3:30) *Intermission to Visit Exhibits.*

10. (4:00) *Panel Discussion: Carcinoma of the Cervix.*
ROGER B. SCOTT, Cleveland, Ohio, Moderator;
JOHN WALL, Houston (Gynecologist);
RICHARD H. CHAMBERLAIN, Philadelphia, Pa. (Radiologist);
and JOHN R. SCHENKEN, Omaha, Neb. (Pathologist).

SECTION ON EYE, EAR, NOSE, AND THROAT

Monday, April 29, 2:00 to 5:00 p. m.

Parlor A, Hotel Adolphus

Chairman—P. W. Malone, Big Spring.

Secretary—Alfred A. Nisbet, San Antonio.

1. (2:00) *Toti-Mosher Operation for Dacryocystitis.*
ARTHUR C. JONES, Boise, Idaho.

The advisability of early irrigation in infantile dacryocystitis and a simple, effective way of doing it will be discussed. Slides will show the external approach for dacryocystitis and the easy accomplishment of the surgery with avoidance of hemorrhage. Why it is not necessary to suture the canthal ligaments will be pointed out; and a report of more than 200 cases of the Toti-Mosher operation, most of them done under local anesthetic, will be presented.

2. (2:30) *Discarding Old Ideas in Otolaryngology.*
THOMAS FOLBRE, San Antonio.

Frequently used outworn diagnoses will be discussed. Chronic ear canal itch, commonly called "fungus," is more often a dermatitis or eczema. Vascular pain is still mistakenly called neuritis or neuralgia. Headache from vascular or muscle tension causes is too often blamed on sinuses. Inner ear disease is mistakenly blamed on the eustachian tube. In mastoid and sinus surgery too much emphasis is still put on tissue removal rather than on ventilation and drainage.

Discussion.

3. (3:00) *Nasal Deformities in the Newborn.*
J. CHARLES DICKSON, Houston.

A careful review of the literature will be given on nasal deformities in the newborn. This review will bring in a number of factors that cause deformities such as trauma, developmental problems, and racial characteristics. A survey will be given of 250 consecutive births in white, Mexican, and Negro patients, including types of noses and number and kind of deformities. A discussion of recommended treatment in this type of condition will include case reports.

Discussion.

4. (3:30) *Intermission to Visit Exhibits.*

5. (4:00) *Carcinoma of the Larynx.*
G. S. MCREYNOLDS, Galveston.

A review and analysis of a series of cases of carcinoma of the larynx, emphasizing the results of the various forms of treatment, will be presented. It is important that the first form of treatment be adequate, as the secondary form of treatment offers a very low salvage rate.

Discussion.

6. (4:30) *Aerotitis, the Advisability of Recognition and the Proper Method of Handling.*
ARTHUR C. JONES, Boise, Idaho.

To be presented are the diagnosis of aerotitis, the advisability of early aspiration both in children and in adults, pathologic findings in the aspirated fluid, aerotitis as a possible cause of deafness, technique of aspiration, use of 10 per cent cocaine in analine oil for anesthesia of the tympanum, a warning that mastoidectomy is contraindicated in aerotitis, and immediate improvement in hearing following the aspiration.

Tuesday, April 30, 2:00 to 4:30 p. m.

Parlor A, Hotel Adolphus

(Members of the Section on Eye, Ear, Nose, and Throat will participate in the Texas Ophthalmological Association meeting Tuesday, April 30, from 10:00 a. m. to 12:00 noon in Parlor A, Hotel Adolphus, and will have luncheon with the group at 12:30 p. m. in Parlor D, Hotel Adolphus. Program details are given on page 215.)

7. (2:00) *Complications of Cataract Extraction.*
A. D. RUEDEMANN, SR., Detroit, Mich.

Complications are produced by the following: (1) The type of cataract one has to deal with. A cataract of short duration, previously called "unripe," carries a higher potential for trouble. (2) Complications produced at surgery. (3) Complications produced by a combination of both. Time is an important factor in selection of surgery.

8. (2:30) *Subconjunctival Implantation of Gelfilm Over Area of Inclusion of Iris in Scleral Wound for Glaucoma.* LOUIS DAILY, Houston.

Gelfilm was placed between conjunctiva and the area of incarceration of iris in a scleral incision in 7 glaucomatous eyes. Ocular tension was controlled in 1 eye, controlled with supplemental use of a miotic and Diamox in 3 eyes, and uncontrolled in 3 eyes postoperatively. Postoperatively, unusually large blebs with marked protrusion forward of conjunctiva were present in 2 eyes, but ocular tension of these eyes was not controlled satisfactorily.

Discussion.

9. (3:00) *Experimental Hypnosis in Ophthalmology.*
LESTER QUINN, Dallas.

The report will cover a preliminary survey of the use of hypnosis in studies of amblyopia ex anopsia. A comparison of the results of studies in a limited adult and child patient group will be made. A consideration of the application of hypnosis in ocular surgery will be discussed.

Discussion.

10. (3:30) *Intermission to Visit Exhibits.*

11. (4:00) *Unusual Ocular Infections.*
HUGH L. ORMSBY, Toronto, Canada.

Unusual ocular manifestations of bacterial, viral, and fungus infection are frequently a source of diagnostic difficulty. On the lids and lid margins, marginal blepharitis, infectious eczema, and allergic eczema are often difficult to differentiate clinically. On the cornea, herpetic ulcers, disciform keratitis, and metaherpetic interstitial keratitis frequently assume varying patterns. Some adenovirus infections cause corneal involvement which is not always distinguishable. The relation of systemic and local immune factors to corneal infection will be discussed.

SECTION ON RADIOLOGY

Monday, April 29, 2:00 to 5:30 p. m.

English Room, Baker Hotel

Chairman—Herman C. Sehested, Fort Worth.
Secretary—Robert N. Cooley, Galveston.

1. (2:00) *Importance of the Postvoiding Roentgenogram in Pediatric Urology.*
ALEX M. FINLAY, JR., Gainesville.

Not infrequently both general practitioners and pediatricians see patients with fevers of unknown origin that respond readily to various types of antibiotic therapy. Much too infrequently excretory urography and studies on the urinary tract are performed. Several case histories will be discussed. Postvoiding films in these cases show definite early urinary retention and minimal bladder trabeculation.

Discussion.

2. (2:30) *Intravenous Cholangiography and Cholecystography.* CURTIS H. BURGE, Houston.

Experience with intravenous cholangiography and cholecystography over a period of approximately two and one-half years will be reviewed. The author's experience has been confined to the use of one brand of contrast medium which up to now has produced no serious side effects. The value of tomography will be discussed, and an attempt made to determine the true value of the procedure and its indications and contraindications, especially in jaundiced patients.

Discussion.

3. (3:00) *Hiatal Hernia: Evaluation of Diagnostic Procedures.* ARNO W. SOMMER and CHARLES L. STEVENSON, Temple.

Increased interest in hiatal hernia as a cause of complaints referable to the gastrointestinal tract has emphasized the need for greater diagnostic accuracy. A study therefore was undertaken to evaluate the roentgenologic procedures commonly employed to demonstrate this abnormality. The results of a series of more than 100 patients with hiatal hernia, each subjected to all the usual diagnostic methods and to an additional procedure devised by the authors, will be reported. A simple diagnostic routine which is impressive for its simplicity and accuracy will be described.

Discussion.

4. (3:30) *Intermission to Visit Exhibits.*

5. (4:00) *Some Historical Items About Texas Radiology.*
R. T. WILSON, Austin.

This paper will deal with the history of radiology in Texas, especially that since the centennial celebration of the Texas Medical Association in May, 1953, and will include some biographical sketches of radiologists who made this history.

6. (4:30) *Roentgen Manifestations of Leukemias and Lymphomas in Childhood.*
ROBERT L. EGAN, Houston.

In addition to the usual changes observed in the mediastinum, liver, and spleen of children with leukemia or one of the lymphomas, invasion of the bone is encountered. The recent increase in survival following the administration of various chemotherapeutic agents has resulted in some additional roentgen signs which are generally not related to these diseases. The characteristic systemic findings will be discussed briefly as will examples of changes now found in the brain, kidneys, and skeletal system.

Discussion.

7. (5:00) *Increasing Scope of Bronchography with Dionosil.* CAROLINE W. ROWE, Galveston.

The use of a rapidly absorbable opaque medium (Dionosil) has greatly increased the application of bronchography in the study of all types of chest disease. A review of the cases studied with Dionosil at the University of Texas Medical Branch Hospitals will be presented with an analysis of the diagnoses and the value of the information obtained in regard to management of the patient. Emphasis will be placed on the necessity for obtaining complete peripheral filling of all bronchi.

Discussion.

Tuesday, April 30, 2:00 to 5:30 p. m.

English Room, Baker Hotel

8. (2:00) *Can the Cure Rate in Squamous Cell Carcinoma of the Uterine Cervix Be Improved?*
GILBERT FLETCHER, Houston.

There are three possibilities for improving the cure rate in squamous cell carcinoma of the uterine cervix: radical departure from conventional radium therapy; injection in the parametrium of radioactive material, such as gold (Au^{198}), which would sterilize the lymphatic spread; and high doses to the whole pelvis with supervoltage roentgen therapy, followed by much diminished local radiation. The three methods of approach are now being clinically tried and a brief review of each will be given.

Discussion.

9. (2:30) *Is Radium Still Needed for Cancer Therapy?*
CHARLES L. MARTIN, Dallas.

The statement is now frequently made that radium will soon be replaced by radioactive isotopes. The author believes that low intensity radium sources still constitute the best form of therapy for accessible neoplasms. Illustrative cases and statistical studies collected during many years of experience will be presented to support this opinion. A comparison of results obtained with low intensity radium needles and radioactive cobalt (Co^{60}) needles will be reported, and the advantages and disadvantages of other types of interstitial therapy will be discussed.

Discussion.

10. (3:00) *Achievements and Deficiencies in the Management of Thyrotoxicosis with Radioactive Iodine.*
RICHARD H. CHAMBERLAIN, Philadelphia, Pa.

Radioactive iodine (I^{131}) offers an elegant and satisfactory method of controlling thyrotoxicosis. In a large proportion of patients it is

the treatment of choice. The three major groups of patients in whom its use should be given serious forethought are the young patient, the patient with a large goiter, and the patient with nodular goiter. In extremely toxic patients, one should be aware of the possibility of inducing thyroid "storm."

Discussion.

11. (3:40) *Intermission to Visit Exhibits.*

12. (4:00) *Precancerous Lesions of the Skin.*
LOUIS A. BRUNSTING, Rochester, Minn.

Senile keratoses and those arising from exposure to arsenic, tar, or roentgen rays or radium will be differentiated from seborrheic keratoses and keratoacanthoma. Forms of leukoplakia of the mouth and genitalia will be distinguished from certain benign processes which resemble them, particularly lupus erythematosus, lichen planus, and lichen sclerosus et atrophicus. The problem of the pigmented lesions also will be considered.

13. (4:30) *Use of Radioactive Phosphorus and Testosterone in the Treatment of Metastatic Lesions in Bone from Cancer of the Breast and Prostate.*
J. R. MAXFIELD, JR., JACK G. S. MAXFIELD, and VINCENT VERMOOTEN, Dallas.

The patient with metastatic cancer in bone from breast and prostate is a serious problem today, and the present methods of treatment by external radiation therapy, castration, steroid hormone therapy, and chemotherapeutic agents fall short of what is desired in relief of these patients. The authors' plan of treatment, which will be described, is better in the relief of pain, alleviation of symptoms, and the production of longer remissions and better palliation than has heretofore been available.

Discussion.

14. (5:00) *Evaluation of the Radiation Treatment of Bronchogenic Carcinoma.*
HAROLD TIVEY, Houston.

A brief review will be given of some results from the treatment of this tumor with 250 KV, Co^{60}, and 2 MeV therapy. The natural history of the disease will be reviewed and criteria for evaluation of the effects of treatment discussed.

Discussion.

SECTION ON PUBLIC HEALTH

Tuesday, April 30, 2:00 to 4:30 p. m.

Texas Room, Baker Hotel

Chairman—L. D. Farragut, Houston.
Secretary—J. E. Peavy, Austin.

(Members of the Section on Public Health will participate in the Conference of City and County Health Officers on Monday, April 29, from 2:00 to 4:20 p. m. in the Texas Room of the Baker Hotel. Program details of the conference are given on page 217.)

(The Section on Public Health will have luncheon with the Texas Geriatrics Society on Tuesday, April 30, from 12:00 noon to 1:30 p. m. in the Texas Room of the Baker Hotel. Dr. Henry B. Mulholland, Charlottesville, Va., will speak on "Medical Aspects of Aging and Long-Term Illness.")

1. (2:00) *The Place of the Family Doctor in Comprehensive Medical Care.*
WILSON G. SMILLIE, New York, N. Y.

An estimate was made of the various types of medical services a community may require by securing an analysis of services that have been provided under a prepayment plan for comprehensive medical care. The allocation of these required medical services was outlined for a typical rural community and clearly indicates the important place the family physician will occupy in supplying the medical needs of a given community.

2. (2:30) *Expanding Occupational Health in Texas.*
W. L. WILSON, Austin.

The paper will propose an integrated health program guided by licensed local physicians and aided by health department, management, and workers, supporting a progressive state preventive program to assure widespread working environmental health for three million gainfully occupied Texans. Essentials discussed will include proper design; governmental consultation, when indicated; extensive engineering, safety, and welfare consultations; and implementation by management, physicians, and workers themselves. Increasing community economic success balancing ever improving individual physical and mental health are foreseen.

Discussion.

3. (3:00) *St. Louis Encephalitis—1956 Outbreak in West Texas.* C. A. PIGFORD, Lubbock.

A documentation of more than 300 cases of arthropod borne viral encephalitis occurring in eight counties on the irrigated high plains of Northwest Texas will be presented. Although the Western Equine type has been found to be endemic in this area, the outbreak was predominately St. Louis. Comparison indicates the rates of attacks were 4 to 5 times less in a locality where adequate mosquito control was in effect.

Discussion.

4. (3:30) *Intermission to Visit Exhibits.*

5. (4:00) *Texas Keeps Books on Cancer.*
WILLIAM S. BRUMAGE, Austin.

The Texas medical profession's interest in cancer dates back to 1914 when its cancer committee was first appointed. In 1949, hospital and community cancer record registries were built. These registries are doing much to measure progress and to determine the size and nature of the cancer problem. As a result of their growth, Texas is now in the forefront of cancer morbidity studies throughout the country.

Discussion.

SECTION ON CLINICAL PATHOLOGY

Monday, April 29, 2:00 to 5:00 p. m.

Banquet Room 5, Baker Hotel

Chairman—Wilson G. Brown, Houston.
Secretary—Lloyd R. Hershberger, San Angelo.

1. (2:00) *Practical Considerations in the Management of Malignant Bone Tumors.*
H. RELTON MCCARROLL, St. Louis, Mo.

The problem of malignant bone tumors will be discussed from a clinical standpoint. This will include the osteosarcoma, chondrosarcoma, Ewing sarcoma, reticulum cell sarcoma, fibrosarcoma, and the myeloma group. Physical and roentgen-ray signs in the initial diagnosis, the importance of biopsy, the necessity of a pathologist trained in the field of bone pathology, and the type of treatment which is to be used in each problem will be discussed.

2. (2:30) *Criteria for the Histologic Diagnosis of Struma Lymphomatosa.* R. H. CHAPPELL, Texarkana.

If adequate criteria exist as to the histologic diagnosis of struma lymphomatosa, they are not apparently agreed upon by the majority of pathologists. It is important to know what is being called struma lymphomatosa by most pathologists in the Gulf Coast area, where the disease is said to be prevalent. The percentage of lymphoid tissue and the presence or absence of acinar changes, which seem to be the chief source of disagreement, will be discussed.

Discussion—C. T. ASHWORTH, Fort Worth.

3. (3:00) *Use of P^{32} Radioactive Phosphorus in the Diagnosis of Intraocular Neoplasm—Pathologic Aspects.* HERBERT C. ALLEN, JR. and JOHN R. THOMAS, Houston.

This paper deals with the correlation of clinical, diagnostic, and pathologic findings in tumors of the eye. Case reports will be used to emphasize the details of the findings from onset of symptoms to final study of the enucleated specimen.

Discussion—LOUIS DAILY, Houston.

4. (3:30) *Intermission to Visit Exhibits.*

5. (4:00) *Visceral Larva Migrans.*
WOLF W. ZUELZER, Detroit, Mich.

6. (4:30) *Fungus Studies in Routine Admissions to a Tuberculosis Sanatorium.*
LLOYD R. HERSHBERGER, San Angelo.

A study of fungus disease of the lung in admissions to a tuberculosis hospital attempts to show coincidental disease caused by both fungi and tubercle bacilli, as well as fungus diseases mistaken for tuberculosis. The results of sputum cultures, cultures from fresh surgical specimens, and the attempt to demonstrate fungi in tissue by special stains will be given.

Discussion—DAVID W. FLORY, Harlingen.

Tuesday, April 30, 2:00 to 5:00 p. m.

Banquet Room 5, Baker Hotel

7. (2:00) *Tumors of the Salivary Glands.*
JOHN R. SCHENKEN, Omaha, Neb.

About 90 per cent of these tumors arise in the parotid gland and about 50 per cent are benign; however, there is a marked variation in the degree of malignancy among the cancerous tumors. The importance of these differences will be emphasized. Particular attention will be paid to the variations in the gross and histologic features of benign tumors which might be mistakenly called malignant changes. Special mention will be made of Warthin's tumor.

8. (2:30) *The Pathogenesis of Hepatic Cirrhosis.*
HOWARD C. HOPPS, Galveston.

Macrosections and macrophotographs of the liver from a number of cases of hepatic cirrhosis will be presented. These, together with photomicrographs from the same cases, will serve as the basis for a new classification of cirrhosis in which pathogenesis is emphasized.

9. (3:00) *Serum Protein Electrophoresis in a General Hospital Laboratory.*
C. D. FITZWILLIAM, Fort Worth.

This paper deals with a brief history of the priociples of electrophoresis as applied to the fractionation of human serum proteins. A brief review of the physical and electrophoretic characteristics of the various albumin and globulin complexes will be given. Illustrations will be used representing normal human serum electrophoretic patterns, and the application of serum protein electrophoresis as a diagnostic and prognostic aid in the study of various diseases will be preseoted.

Discussion—MERVIN H. GROSSMAN, Dallas.

10. (3:30) *Intermission to Visit Exhibits.*

11. (4:00) *The Ultraviolet Flying Spot Television Microscope* (motion picture).
PHILLIP O'B. MONTGOMERY, Dallas.

An explanation of the technique of ultraviolet flying spot television microscopy will be given together with the projection of a 16 mm. black and white motion picture. The film was made utilizing ultraviolet light and hence shows the changing ultraviolet absorption patterns of living cells. Examples will be given of both normal cells and cancer cells.

Discussion—LOUIS S. SMITH, Dallas.

12. (4:30) *The El Paso County Program for the Medical Investigation of Sexual Offenses.*
F. P. BORNSTEIN, El Paso.

This paper deals with forensic medicine. The El Paso County program for the medical investigation of sexual offenses will be outlined, and case reports will illustrate its operation.

Discussion—LOUIS J. MANHOFF, San Antonio.

"The Showcase of Texas Medicine"

SCIENTIFIC EXHIBITS

On display daily — Lounge, Baker Hotel

SECTION ON PEDIATRICS

Monday, April 29, 2:00 to 5:00 p. m.

French Room, Hotel Adolphus

Chairman—Theodore C. Panos, Galveston.
Secretary—Edward L. Pratt, Dallas.

1. (2:00) *Erythroblastosis Fetalis.*
WOLF W. ZUELZER, Detroit, Mich.

2. (2:30) *Recurring Abdominal Pain in Children.*
LUKE W. ABLE, Houston.

Abdominal pain is almost as common as a cold. Unless it is severe or complicated, it is disregarded by parents, patients, and doctors. The pain may be the early symptoms of severe local disease such as tumor, urethral stricture, or intussusception and part of a generalized disease such as lymphosarcoma, sickle cell crisis, or rheumatic fever. Many diseases should be briefly considered before appendectomy. A working differential diagnosis and treatment will be presented.

3. (2:50) *Clinical Management of Enuresis.*
OSCAR L. JOHNSON, Freeport.

Enuresis is usually not due to a demonstrable organic defect. In the large majority of children disease or aoomaly can be readily ruled out by history, examination, aod simple office laboratory investigation. Therapy should combine drugs to reduce the bladder tone and to increase awareness of the urge to urinate with measures to decrease the volume of night urine and motivation of the child by means of superficial psychotherapy and rapport with the physician.

(3:10) Discussion.

4. (3:30) *Intermission to Visit Exhibits.*

5. (4:00) *Psychosomatic Illness in Children.*
REYNOLD A. JENSEN, Minneapolis, Minn.

Because of recent scientific researches, the physician can no longer overlook or disregard the importance of "stress" in the pathogenesis of illness and disease in any age group, especially children. This presentation will deal with the importance of social, emotional, and psychological stress in children's complaints of illness and disease and the need to consider such in every medical problem presented to the physician.

6. (4:30) *Clinical Aspects of Diagnosis and Management of Hemophilia-Like Disorders in Children.*
HELEN DAVIS, Galveston.

As new knowledge and theories concerniog the blood clotting mechanism have occurred, so has there developed confusion, especially of nomenclature, relating to the various blood clotting disorders. Clinically these disorders are similar and are distinguished only by laboratory studies not generally available outside a medical center. These disorders may be divided according to the three phases of blood coagulation. A fourth type is characterized by a circulating anticoagulant.

Discussion.

Tuesday, April 30, 2:00 to 5:00 p. m.

French Room, Hotel Adolphus

7. (2:00) *Panel Discussion: Accidents and Poisonings in Childhood* (in cooperation with the Texas Chapter, American Academy of Pediatrics).
EDWARD L. PRATT, Dallas, Moderator.
a. *Accidents.* FLOYD A. NORMAN, Dallas.
b. *Poisonings.* PERCY E. LUECKE, JR., Dallas.
c. *American Academy of Pediatrics Accident Prevention Program.* J. M. COLEMAN, Austin.

8. (3:30) *Intermission to Visit Exhibits.*

9. (4:00) *Mental Retardation.*
REYNOLD A. JENSEN, Minneapolis, Minn.

Since 1.5 to 3.0 per cent of our total population is mentally retarded, this group comprises the largest single medical problem confronting the physician. The magnitude of the problem is further emphasized when the number of families involved is included. This presentation will consider briefly the role and responsibility of the physician in dealing with the patient who is or is suspected of being mentally retarded and his family.

10. (4:30) *Current Concepts in the Prevention and Management of Tetanus.* DORIS J. D. ADAM and MAURICE ADAM, Galveston.

Active immunization continues to afford the greatest protection against tetanus, and recent studies have defined better the duration of this protection. In the unimmunized person, early and adequate surgical care serves as the best prophylaxis inasmucb as the protection offered by tetanus antitoxin is unreliable. In active cases of tetanus, the early use of tracheostomy and continuous intravenous barbiturate sedation along with debridement and antitoxin have resulted in a lowering of mortality rates.

Discussion.

EXHIBITS

MOTION PICTURES

Sunday, April 28, 7:30 p. m.
Parlor G, Hotel Adolphus

JOHN C. KENNEDY, Houston, Presiding.

1. (7:30) *The Case of the Doubting Doctor.*

A newspaper editor discovers an interesting story while listening to a debate on the merits of the American Medical Association and medical societies. The "doubting" doctor, prompted by a bet, sets out to prove his criticisms. Instead, be finds himself taking his first good look at AMA activities which benefit both the doctor and the public.

2. (8:05) *On Impact.*

Filmed for the American Medical Association and the Ford Motor Corporation, this film shows how the medical profession and the automobile industry are cooperating to work out the new approach to highway safety. It contains a report from the Automotive Crash Injury Research Project at Cornell University Medical College of the effectiveness of five new automobile safety devices which were introduced in 1955.

3. (8:35) *The Medical Witness.*

The first in a series on medicine and the law, produced by the William S. Merrell Company in cooperation witb the American Medical Association and the American Bar Association, this motion picture shows in vivid and dramatic scenes the right and wrong ways to offer medical testimony.

4. (9:05) *Crash and Live.*

This crash research film was produced by the Ford Motor Corporation in collaboration with Cornell University Medical College.

Monday, April 29, 10:00 a. m.
Parlor G, Hotel Adolphus

1. (10:00) *The Clinical Manifestations and Treatment of Gout.*

Prepared under the supervision of Dr. Elmer C. Bartels, Boston, this film, by use of interesting case histories, discusses the signs, symptoms, and treatment of gout with particular emphasis on the clinical application of Benemid.

2. (10:35) *Anti-Tuberculosis Drugs in the Medical and Surgical Treatment of Tuberculosis.*

Benefits from, and limitations of, the modern anti-tuberculosis drugs, such as PAS, streptomycin, dihydrostreptomycin, and Nydrazid, are dealt with. Drs. H. Corwin Hinshaw and Albert C. Daniels, San Francisco, prepared this film.

3. (11:05) *Modern Concepts of Epilepsy.*

Dr. Francis M. Forster, Washington, D. C., supervised this motion picture. The cortical differences between normal persons and epileptic patients are demonstrated, and actual cases of grand mal, petit mal, and psychomotor epilepsy, as well as the clinical Jacksonian seizure, are presented. Specific treatment and anticonvulsant drugs are recommended.

4. (11:35) *Early Management of the Severely Burned Patient.*

Drs. Edwin H. Ellison and Roger D. Williams, Columbus, Ohio, prepared this film, which illustrates prevention of infection, treatment of shock, technique of the initial treatment of the burned surface, and the application of occlusive, absorptive dressings. Interim care to the time of the first grafting is given.

5. (12:05) *A Method of Thoracoplasty for Chronic Empyema.*

When thoracoplasty is necessary in the treatment of a chronic empyema, the ideal operation should provide for certain closure of the pleural space, cause minimal damage to the chest wall, permit closure of bronchopleural fistulas, result in a stable chest wall, and be accomplished in one stage and allow primary suture of the wound. This operation is demonstrated under the direction of Drs. Robert M. Janes and Frederick G. Kergin, Toronto, Canada.

6. (12:30) *Anterior Resection of Rectosigmoid with Primary Anastomosis.*

The removal of a carcinoma of the rectosigmoid and the reestablishment of intestinal continuity by anastomosing the sigmoid to the upper rectum is illustrated. The resection is supplemented by a catheter cecostomy. Dr. G. V. Brindley, Temple, prepared this film.

Available on Request:

Successful Surgical Separation of Siamese Twins (Pygopagus Type).

This is the first successful separation of fused twins in which viscera were involved and in which both twins survived. Because of a common anus, preliminary colostomies were performed on each twin. The colostomies and separation are shown, and photographic records at various ages show results. Approved by the American College of Surgeons, this film is by Dr. Alton Ochsner, New Orleans.

The Invader.

George C. Stoney, Atlanta, tells the story of man's efforts to cope with the baffling and dismaying problem of syphilis. The step-by-step development of medical knowledge and the changes in public attitudes toward the disease are shown.

Tuesday, April 30, 10:00 a. m.
Parlor G, Hotel Adolphus

1. (10:00) *Pitfalls in Management of Refractory Heart Failure.*

Common pitfalls are demonstrated in this Medical Film Guild production. Differential diagnosis, proper handling of digitalization, and diuretic therapy and its effect on electrolyte balance are among the vital problems under discussion. Bedside conferences exemplify overdigitalization and underdigitalization, bypochloremic alkalosis, the low salt syndrome, and other imbalances leading to apparent "refractory" states.

2. (10:40) *Resection with Homograft Replacement of Thoracoabdominal Aneurysm of Aorta Involving Celiac Superior and Renal Arteries.*

This film by Dr. Michael E. DeBakey, Houston, is concerned with surgical treatment of fusiform aneurysm arising in the lower descending thoracic aorta involving the upper portion of the abdominal aorta, including in particular the celiac superior and renal arteries. Treatment by resection and replacement with homografts is illustrated.

3. (11:10) *Technique of Operative Cholangiography.*

Dr. Stanley O. Hoerr, Cleveland, Ohio, produced this motion picture, which emphasizes the simplicity of equipment required for the procedure demonstrated.

4. (11:25) *Mediastinal Exploration for Parathyroid Adenoma.*

Removal of a parathyroid adenoma from the mediastinum of a patient with hyperparathyroidism is illustrated in this film by Dr. O. Theron Clagett, Rochester, Minn.

5. (11:35) *Fractures of the Leg and Ankle.*

This film presents, in a simple and diagrammatic manner, the skeletal anatomy of the leg and ankle. A sensible and practical outline of the common types of fractures that occur in the sbafts of the tibia and fibula, and of the ankle malleoli, is given. Dr. William A. Larmon, Chicago, is the producer.

6. (12:10) *Vaginal Repair.*

A simplified approach to complete vaginal repair is demonstrated in a new film prepared by Drs. Stanley F. Rogers, Jack Moore, and Warren Jacobs, Houston. While it is based on procedures developed and reported by many authors, the technique demonstrated has been simplified, is attended by little blood loss, and can be performed in a relatively short time.

7. (12:35) *Preparing for Surgery.*

Produced by Winthrop Laboratories as an educational tool for medical and nursing schools, this film is designed to aid in instructing students in the routines to be followed in preparing for surgery.

8. (1:00) *Liver Biopsy with Vim-Silverman Needle.*

Indications, contraindications, and technique of needle biopsy of the liver, using subcostal and intercostal approaches, are shown at normal speed and in slow motion in this film by Drs. Charles H. Brown and Arthur M. Clark, Cleveland.

Available on Request:

The Medical Witness.

The first in a series on medicine and the law, produced by the William S. Merrell Company in cooperation with the American Medical Association and the American Bar Association, this motion picture shows in vivid and dramatic scenes the right and wrong ways to offer medical testimony.

Aortic Graft for Arteriosclerosis Obliterans.

The resection of the aortic bifurcation in a patient with occlusion of this vessel due to arteriosclerosis and its replacement with a freeze-dried homograft are illustrated. Technical details of the procedure rather than the clinical aspects of the problem are emphasized. This film, by Dr. A. W. Humphries, Cleveland, is approved by the American College of Surgeons.

Wednesday, May 1, 10:00 a. m.
Parlar G, Hotel Adalphus

1. (10:00) *Surgical Treatment of Varicose Veins.*

Dr. Geza deTakats, Chicago, prepared this presentation of physical diagnostic methods used in the selection of patients for operation and in the decision as to type of operation for varicose veins.

2. (10:30) *Cervical Exploration for Hyperparathyroidism.*

Dr. B. Marden Black, Rochester, Minn., depicts in this film the finding of 4 parathyroid glands, in one of which an adenoma had developed, together with anatomic structures in the region.

3. (10:40) *Pediatric Anesthesiology.*

This motion picture was prepared by E. R. Squibb & Sons, New York, for use in demonstrating the technique of anesthesia in children.

4. (11:10) *Technique of Proctoscopy.*

Dr. Raymond Jackman, Rochester, Minn., demonstrates the use of various instruments in the practice of proctoscopy, and various positions of patients are shown.

5. (11:20) *Crash Research.*

This motion picture deals with extensive research conducted by the Ford Motor Corporation research team on crash injuries. It demonstrates the value of safety belts and locks.

SCIENTIFIC EXHIBITS

Scientific exhibits will be displayed in the Lounge of the Baker Hotel. A first, second, and honorable mention award will be made for the best scientific exhibits in two categories: (1) individual or unsubsidized and (2) institutional whether in the name of the institution or of an associated individual.

A list of exhibitors follows:

INDIVIDUAL EXHIBITS

DR. LOUIS E. ADIN, JR., Dallas. "Stapes Mobilization."

The indications for, and mechanics of, mobilization of the stapes in otosclerosis are presented as well as the results of the procedure as compared with fenestration of the labyrinth. The differential diagnosis of conductive deafness is shown.

DR. DALE J. AUSTIN and DR. JESSE E. THOMPSON, Dallas. "Surgical Management of Popliteal Aneurysms."

The hazards and complications of untreated arteriosclerotic popliteal artery aneurysms are contrasted with the excellent results which can be obtained by early surgical treatment. Excision and arterial graft replacement are emphasized. Charts, drawings, x-rays, and color transparencies show experiences with 21 aneurysms.

DR. LOUIS DAILY, Houston. "Ophthalmic Operations" (motion picture).

A descriptive narration accompanies the showing of about 10 ophthalmic operations; some of these films are approved by the American College of Surgeons. The exhibit consists of about 3,000 feet of film with magnetic sound projected into the exhibit booth.

DR. HERBERT H. HARRIS and DR. BEN M. NAIL, Houston. "Fixation of Fractures in the Middle Third of the Face Using Kirschner Wires."

Three plastic skulls, with typical fractures, are shown after repair with Kirschner wires. On other panels are photographs of cases before and after surgery; photographs of the x-rays also are shown. Wing panels give illustrations of more complicated cases.

DR. CHARLES L. MARTIN and DR. JAMES A. MARTIN, Dallas. "Is Radium Still Needed for Cancer Therapy?"

Although the statement frequently is made that radium soon will be replaced by radioactive isotopes, it is the exhibitors' opinion that low intensity radium sources properly applied constitute the best therapy for accessible neoplasms. The basis for this opinion is presented by color illustrations and appropriate charts of clinical material selected to illustrate statistical studies collected during many years of experience.

DR. ROBERT R. SHAW, DR. DONALD L. PAULSON, and DR. JOHN L. KEE, Dallas. "Bronchiogenic Carcinoma."

This exhibit is designed to call attention to the problem of bronchiogenic carcinoma, and to illustrate the various phases in the natural history of this neoplasm. X-rays and color photographs of specimens from illustrative cases are presented.

INSTITUTIONAL EXHIBITS

AMERICAN CANCER SOCIETY, TEXAS DIVISION, Austin: "Cancer of the Cervix."

This exhibit deals with the International Classification of uterine cancer translated into color plates illustrating the clinical picture, biopsy, and vaginal smears in "not normal but malignant" lesions and in "not normal but benign" lesions. Cancer of the cervical stump is graphically depicted, and statistical aspects are given.

BAYLOR UNIVERSITY COLLEGE OF MEDICINE, Houston: Dr. Paul K. Conner, Jr.; Dr. Sam Kinard; and Dr. John H. Moyer. "A Therapeutic Appraisal of Antiemetic Agents."

This exhibit compares the therapeutic effectiveness of antiemetic agents Dimenhydrinate, Dimenhydramine, Cyclizine, Meclizine, Promethazine, Chlorpromazine, and Proclorperazine in each of the common emetic syndromes. An attempt is made to determine one best drug for use in each cause of vomiting.

BAYLOR UNIVERSITY COLLEGE OF MEDICINE, Houston: Dr. John H. Moyer, Dr. Ralph V. Ford, Dr. Coleman Caplovitz, and Dr. Edward W. Dennis. "Use of Ganglionic Blocking Agents in Hypertension."

The exhibit shows the survival rate in patients with malignant hypertension, progressive vascular deterioration in an untreated patient, effect of treatment on a patient who previously showed progressive renal deterioration, incidence of some symptoms and signs in patients with hypertension, and the beneficial effects of antihypertensive therapy. Physiologic and clinical considerations of value in the use of ganglionic blocking agents are shown in diagram, and an electrically lighted device for locating the sites of action of drugs is included.

BAYLOR UNIVERSITY COLLEGE OF MEDICINE, DEPARTMENT OF PEDIATRICS, Houston: Dr. Katharine H. K. Hsu. Supported by the Houston and Harris County and Texas Tuberculosis Associations. "Primary Tuberculosis in Children."

Representative cases will be used to illustrate selection of patients for prophylactic drug therapy. The potential dangers of primary tuberculosis in childhood, the rationales of antimicrobial therapy of children with primary tuberculosis infection, criteria for diagnosis and selection of cases for prophylactic drug therapy, and discovery of cases will be emphasized.

BROWNE-MCHARDY CLINIC, New Orleans: Dr. Byron M. Unkauf. "Conservative Treatment of Some Common Fractures."

The causes of displacement and deformity, together with the methods of overcoming some of these, are described and illustrated. The methods of reduction in some instances, the necessity or not for plaster cast immobilization, and the pitfalls of inadequate plaster casts and immobilization, are outlined.

HERMANN HOSPITAL, Houston: Dr. Edward A. Fitch, Dr. Frank C. Chapman, and Dr. Frank R. Denman. "Ivalon Arterial Grafts."

The information gained from the use of Ivalon molded compressed arterial grafts during the past two years is presented pictorially. The importance of precision manufacturing, the histologic fate, and the use in experimental and clinical cases is shown. Definite indications, contraindications, and unanswered questions have been discovered.

HERMANN HOSPITAL, Houston: Dr. Henry Goodwin Glass, Dr. George W. Waldron, and Dr. Wilson G. Brown. "Cancer in Thyroid Diseases."

A 30 year survey of all thyroidectomies in one hospital, with emphasis on the incidence of carcinoma and other malignancies coexistent with thyroid disease, is presented. The exhibit includes clinical data and recommendations for therapy, gross and microscopic findings, and gross specimens. Percentages of malignancy are flashed off and on in sequence.

HERMANN HOSPITAL, DEPARTMENTS OF GYNECOLOGY AND PATHOLOGY, Houston: Dr. John A. Henderson, III and Dr. S. J. Skinner. "Tumors of the Ovary."

This exhibit consists of 24 Kodacolor reproductions of benign and malignant tumors of the ovary. In addition, a brief brochure will be available giving a concise description of the tumors as reproduced in the exhibit.

HERMANN HOSPITAL, DEPARTMENT OF ORTHOPAEDICS, Houston: Dr. John G. Andrew, Dr. Bruce F. Claussen, and Dr. Edmund M. Cowart. "Pathological Fractures in Children."

The various causes of pathological fractures in children are presented. From the files of Hermann Hospital, illustrated case presentations will be exhibited in the viewboxes.

LOUISIANA STATE UNIVERSITY SCHOOL OF MEDICINE AND BROWNE-MCHARDY CLINIC, New Orleans: Dr. Gordon McHardy, Dr. Robert McHardy, and Dr. Claude Craighead. "Erosive Esophagitis."

Charts, drawings, x-ray films, and photomicrographs are used to show the increased incidence, etiologic contributants, diagnostic features, and therapeutic achievements associated with erosive esophagitis.

MEDICAL DEPARTMENT, EATON LABORATORIES, New York: Dr. Paul F. MacLeod, Dr. George S. Rogers, Dr. Frank C. Waltz, and Dr. Charles F. Friedgood. "Intravenous Nitrofurantoin."

This exhibit reviews some clinical and laboratory experiences with a new intravenous dosage form of nitrofurantoin.

MUSCULAR DYSTROPHY ASSOCIATIONS OF AMERICA, INC., New York: Differential Diagnosis, Forms, and Effects of the Muscular Dystrophies."

An automatic projector shows 12 slides on various aspects of muscular dystrophy. One panel deals with common forms of the disease and with differential diagnosis.

NATIONAL FOUNDATION FOR INFANTILE PARALYSIS, New York: "Immunize Against Poliomyelitis."

Designed to show the importance of vaccinating as large a segment of the population as possible, this exhibit includes the latest figures on the effectiveness of the Salk vaccine, the recommended dosage schedule, and case rates among teenagers and young adults.

SAN ANGELO MEDICAL AND SURGICAL CLINIC, San Angelo: Dr. Francis M. Spencer, and SCRIPPS CLINIC AND RESEARCH FOUNDATION, La Jolla, Calif.: Dr. Lee S. Monroe. "Color Photomicrographs in Teaching Recognition of the Intestinal Parasites."

A continuous projection of color photomicrographs is accompanied by an explanatory sound recording, and enlarged color transparencies demonstrate the diagnostic features of the various ova and protozoa. Emphasis is placed on the frequency and importance of unrecognized parasite infestations.

SCOTT AND WHITE CLINIC, Temple: Dr. N. C. Hightower, Dr. A. C. Broders, Jr., Dr. R. D. Haines, Dr. A. W. Sommer, and Dr. J. F. McKenney. "Chronic Ulcerative Colitis—Diagnostic and Therapeutic Considerations."

This exhibit presents an analysis of data collected from 220 patients with chronic ulcerative colitis. The diagnostic value of roentgenoscopic and proctoscopic findings is illustrated. Treatment of both complicated and uncomplicated types of the disease is shown.

SCOTT AND WHITE CLINIC, Temple: Dr. B. H. Williams and Dr. C. J. Cramm, Jr. "Adhesions of the Labia Minora; Treatment with Topical Estrogenic Ointment."

Photographs obtained before, during, and after treatment show the results of topical application of estrogenic ointment in 45 cases of adhesions of the labia minora. The absence of complicating side reactions from use of the ointment is demonstrated.

TEXAS SOCIETY OF PATHOLOGISTS. "Teamwork Is Our Goal."

This display consists of selections from the advertisements of the Texas Society of Pathologists in the *Texas State Journal of Medicine* during the past 10 years. This material contains news of laboratory advances.

TEXAS SOCIETY OF X-RAY TECHNICIANS. "Rays of Hope."

Placards, films, and literature showing how the x-ray technicians' organizations might help with problems in x-ray departments are displayed.

VETERANS ADMINISTRATION HOSPITAL AND BAYLOR UNIVERSITY COLLEGE OF MEDICINE, Houston: Dr. Irving Chofnas, Dr. Jean Newton, Frances Whitcomb, M. S., and James Norman, M. S. "Chromogenic Acid-Fast Bacilli in Human Pulmonary Disease."

This exhibit demonstrates clinically, radiographically, and bacteriologically the pathologic picture simulating tuberculosis caused by atypical yellow acid-fast bacilli.

TECHNICAL EXHIBITS

Technical exhibits will be displayed in the Ballroom of Hotel Adolphus. Products on display merit the attention of practicing physicians, and the exhibits should be viewed sometime between Sunday noon and Wednesday noon. Recesses in the program Monday and Tuesday afternoons and other breaks between formal events, especially at noon and late afternoon, have been provided to assure opportunity for visiting the exhibits.

An alphabetical list of exhibitors follows:

Abbott Laboratories, Chicago, Booth 89

The new sedative, tranquilizer, and antihypertensive, Nembu-Serpin Filmtabs, will be among new products exhibited by Abbott Laboratories. Also shown will be the new nonbarbiturate hypnotic, Placidyl; Desbutal; Erythrocin Filmtabs; Iberol Filmtabs; Optilets Filmtabs; Vi-Daylin; Selsun; Pentothal Sodium; and Abbott's line of intravenous solutions and equipment.

Air-Shields, Inc., Hatboro, Pa., Booth 75

Along with the new Isolette Rocker for assisting circulation and respiration of the newborn, Air-Shields, Inc., will display the Isolette Incubator and the Croupette Cool-Vapor and Oxygen Tent.

Alcon Laboratories, Inc., Fort Worth, Booth 49

A new sterile ophthalmic preparation, Isopto P H N, will be featured. It combines Polymyxin, Neomycin, and Hydrocortisone (0.5 per cent and 1.5 per cent) in a methyl-cellulose vehicle for rapid and effective treatment of allergic and bacterial conjunctivitis, meibomianitis, and blepharitis. Alcon's line of Drop-tainer Sterile Ophthalmic preparations will be exhibited along with Alcon-efrin, a nasal decongestant in three strengths.

A. S. Aloe Company, St. Louis, Booth 85

At booth 85, the A. S. Aloe Company will have on display a cross section of its complete line of physicians' and surgeons' equipment and supplies. Representatives will appreciate the opportunity of discussing items of mutual interest with Texas doctors.

American Ferment Company, Inc., New York, Booth 61

The American Ferment Company invites physicians to visit its booth and learn about Tod'l Antiseptic Emollient for the treatment and prevention of infantile skin affections, and Falgos, the rapid acting, buffered compound analgesic that causes no gastric upset. Caroid and Bile Salts Tablets, Alcaroid Antacid, and Supligol for biliary therapy also will be displayed.

American Optical Company, Dallas, Booth 27

Texas doctors may see for the first time the new Rx Master, the very latest in a refracting instrument, at booth 27. Also on display will be the most recent Electric Refracting and Treatment Unit, as well as other diagnostic instruments, including the Schepens Binocular Indirect Ophthalmoscope.

American Sterilizer Company, Erie, Pa., Booth 6

The American Sterilizer Company will introduce for the first time a low cost Hi-Speed Autoclave, Model 613R, and an all stainless 16 inch boiling type Sterilizer, Model A-416S, both new for 1957. These two units together with other equipment such as the 8 inch square Autoclave and Cabinet Sterilizers will be demonstrated by company personnel in booth 6.

Audio-Digest Foundation, Glendale, Calif., Booth 76

Audio-Digest Foundation—a subsidiary of the California Medical Association—gives the busy physician an effortless tour through the best of current medical literature each week. This medical tape-recorded "newscast," compiled and reviewed by a professional Board of Editors, may be heard in the physician's automobile, home, or office. The Foundation also offers medical lectures by nationally-recognized authorities.

Ayerst Laboratories, Atlanta, Booth 93

Physicians will be welcome to visit booth 93, where Ayerst representatives will be on hand to welcome them and discuss any Ayerst specialties of interest to them.

Baby Development Clinic, Chicago, Booth 15

The Baby Development Clinic, booth 15, invites physicians to see and hear the story of TMTD (new germicide developed by Lever Brothers), to sample Lifebuoy with TMTD, and to become acquainted with The Book House for Children, a reading plan for parents and children graded from infancy to high school. Miss Charlotte Spiegel, R. N., will be in charge of the exhibit.

Bausch & Lomb Optical Company, Central Division, Dallas, Booth 12

Physicians are invited to visit this booth, where the Ortho Rater, designed for use in checking visual skills of individuals in industrial and various types of school work, will be displayed. Also on hand will be various slides for school work, highway safety, and other fields, and representatives will be glad to demonstrate. A complete line of diagnostic instruments will be shown.

Baxter Laboratories, Inc., Morton Grove, Ill., Booth 45

Baxter Laboratories, Inc., will present the Travert-Electrolyte solutions along with the blood transfusion equipment. Baxter representatives invite doctors to look for the new Incert for the addition of Succinylcholine Chloride and Vitamins B and C. Here is a new method for safe, simple supplementing of parenteral solutions.

Bentex Pharmaceutical Company, Houston, Booth 97

Texas doctors are invited to visit this exhibit, which will feature Gynben, the preferred treatment for vaginitis; Benizol, the safe, simple therapy for easing the burden of caring for mildly confused aged patients; and Pentergot, a rectal insert for relief of tension or migraine headaches. Recently published scientific reports and clinical trial supplies will be offered.

Boyle & Company, Bell Gardens, Calif., Booth 22

Boyle & Company will show its two new Hematinics, Glytinic Liquid and Glytinic Tablets, each containing Aminoacetic Acid; Opidice, an aid in the management of obesity; Triva, the 12 day treatment for vaginitis; and the Citra Family, Citra Capsules and Citra Syrup for colds, hay fever, and allergy; and Citra Forte for quick cough control.

Bristol-Myers Products Division, New York, Booth 39

Bufferin, the better-tolerated antacid-analgesic for long-term salicylate therapy, will be featured by Bristol-Myers. Also, Ammens Medicated Powder, a highly efficacious dispersion of talc in cornstarch; Minit-Rub, a greaseless, stainless rubefacient; and new Theradan, for long lasting relief of seborrhea of the scalp, will be on display.

S. H. Camp and Company, Jackson, Mich., Booth 92

There are interesting new products and new developments in the Camp line of Surgical Supports and Appliances. All are designed to achieve better function in meeting the need when indicated in a doctor's practice. Patients appreciate the comfort, quality, and low cost of Camp appliances, and Texas doctors are invited to visit booth 92 to become acquainted with these items.

Ciba Pharmaceutical Products, Inc., Summit, N. J., Booth 87

Ciba will exhibit Vioform-Hydrocortisone Cream, an extremely effective preparation for controlling a variety of acute and chronic skin disorders. It is antifungal, antibacterial, anti-inflammatory, and antipruritic—a four-way means of providing relief from itching and inflammation. It is effective when many antibiotic combinations fail.

Coreco Research Corporation, New York, Booth 4

The Coret camera embodies the principle of Electronic Flash and Constant Automatic Control of such factors as distance, aperture, field, and exposure. Now, for the first time, Coreco offers a completely automatic professional Clinical Camera purposely designed to achieve the ultimate in surface, intra-oral, and intra-tubular photography. Because of the simplicity of operation, even an inexperienced doctor or nurse can achieve consistently perfect color transparencies.

Curtis Surgical Supply Company, Waco, Booth 2

The Curtis Surgical Supply Company will exhibit ultrasonic machines, office autoclaves, surgical instruments, and miscellaneous items for the medical profession. Mr. G. D. Irvin and Mr. A. L. Fowler will be in charge of the booth.

Cutter Laboratories, Berkeley, Calif., Booth 9

Cutter Laboratories will feature their new oral electrolyte preparations, Polysal K-P and Polysal Elixir. Also featured will be the Saftiflex Blood Bag and the intravenous line of electrolyte solutions. In the blood line, Hypertussis and Polio Immune Globulin will be shown along with the Cutter line of pediatric biologicals. A new approach in preventive medicine is Adult Diphtheria-Tetanus Toxoid.

Davies, Rose, & Company, Limited, Boston, Booth 84

Davies, Rose, & Company, Limited, cordially invites the members of the Texas Medical Association to visit its booth. Although most physicians need no introduction to its outstanding cardiac therapies—Pil. Digitalis and Tablets Quinidine Sulfate, Natural—company representatives, Messrs. H. V. Orne and C. W. Foster, will be on hand to explain the dependability of the company's laboratory productions.

Desitin Chemical Company, Providence, R. I., Booth 63

The Desitin Chemical Company will display Desitin Ointment, pioneer in external cod liver oil therapy; Desitin Powder, medicinal powder saturated with cod liver oil; Desitin Hemorrhoidal Suppositories, which coat the anorectal area with soothing cod liver oil; and Desitin Lotion, soothing, protective, mildly astringent, and healing in nonspecific dermatitis, pruritus, and poison ivy.

Doho Chemical Corporotion, New York, Booth 44

The Doho Chemical Corporation will exhibit Auralgan, for Otitis Media and removal of Cerumen; Rhinalgan, a nasal decongestant; Otosmosan, a nontoxic fungicidal and bactericidal ear medication; and New Larylgan, throat spray and gargle. The Mallon division of Doho will feature Rectalgan, liquid topical anesthesia for use with hemorrhoids, pruritus, and perineal suturing; and Dermoplast Aerosol spray for relief of surface pain, itching, burns, and abrasions.

Dome Chemicals Inc., New York, Booth 8

Dome Chemicals will present superior dermatologicals, including Acid Mantle Creme (pH 4.2) and Lotion (pH 4.5); four types of wet dressings, Domeboro, Chamo-Powder, Dalidome, and Vlem-Dome; Cort-Dome Creme and Lotion (pH 4.6); four specific whole crude coal-tars; and Vi-Dom-A Buccal Tabs, Vi-Dom-A-C Oral-Tabs, and Vi-Dom-C Oral-Tabs for systemic therapy through buccal absorption of vitamins in the treatment of Acne, Miliaria, and Common Cold.

Eaton Laboratories, Norwich, N. Y., Booth 82

Eaton will exhibit Furadantin, which reports show to be one of the most effective and rapidly acting agents available for the treatment of prostatitis and acute and chronic urinary tract infections. Furadantin has specific affinity for the urinary tract, producing antibacterial concentration in 30 minutes. Time consuming trial and error with less effective agents is eliminated.

Eisele & Company, Nashville, Booth 48

Eisele & Company will display a complete line of thermometers, hypodermic syringes (both regular and interchangeable), hypodermic needles, bandages, and other items of interest to members of the medical profession.

Emerson Laboratories, Dallas, Booth 33

Tur-Bi-Kal, Syrpalta, and other prescription specialties, distributed only through the medical profession, will be shown at the Emerson Laboratories exhibit. Mr. Ira S. Jellinek and Mr. Charles A. Emerson, Jr., will be in charge of the booth.

Encyclopedia Americana, Grand Rapids, Mich., Booth 59

Ethical Pharmaceutical Company, San Antonio, Booth 95

Ethical will exhibit Timed Disintegrating prescription products, including Daycap, Histacap, Raucap, and Bellaturic T. D., which offer the advantage of one daily dose instead of three or four. This increases the chances of the patient's taking the suggested dose. Amphetamine, Antihistamine, Reserpine, and Belladonna Alkaloids are offered at a price the patient can afford to pay.

Charles O. Finley & Company, Austin, Booth 99

The Charles O. Finley & Company, administrators of the Texas Medical Association Group Disability Insurance Program, invites members of the Association to discuss their disability insurance programs with representatives.

First Texas Chemical Manufacturing Company, Dallas, Booth 80

The First Texas Chemical Manufacturing Company will exhibit Bamite, for management of obesity; Infantol, for controlling diarrheas; Neo-Vadrin, an antiseptic nasal decongestant; Secran, for anemia therapy; and Tri-Azo-Mul, triple sulfa therapy. Representatives will be in attendance to welcome visiting physicians and to assist them throughout the meeting.

C. B. Fleet Company, Inc., Lynchburg, Va., Booth 42

During the past fifty years, Phospho-Soda (Fleet) has been a symbol of elegance in sodium phosphate medication. Fleet Enema Disposable Unit—an enema solution of Phospho-Soda (Fleet)—is a worthy companion product. The single-use unit simplifies and assures satisfying preparation for proctoscopy and as a routine enema it is a boon to the hospitalized patient.

Geigy Pharmaceutical Company, Yonkers, N. Y., Booth 24

The Geigy exhibit will feature Preludin, the new chemically different appetite suppressant noted for its absence of side actions. Also on display will be Butazolidin, potent nonhormonal antiarthritic; new Sterosan Hydrocortisone Ointment, an anti-inflammatory bacteriostat and fungistat, and other well known Geigy products.

General Electric Company, X-Ray Department, Dallas, Booth 64

Radiographic flexibility and far less fatiguing fluoroscopy will be the important features demonstrated in the new General Electric "Aristocrat" diagnostic x-ray unit to be dis-

played at the Texas Medical Association annual session. Never before has there been so much diagnostic versatility for so little investment. This is a General Electric product in step with medical progress.

The Gilbert X-Roy Company of Texas, Dallas, Booth 60

Booth 60 will be occupied by the Gilbert X-Ray Company of Texas. Representatives will be on hand to discuss any and all problems or plans pertaining to x-ray and physical medicine equipment.

Otis E. Glidden & Company, Inc., Waukesha, Wis., Booth 66

Newest products, Zylax for fast, gentle laxation, and BSP Liquid for prevention of bed sores will be shown. Zymenol and Zymelose Tablets will be displayed, too. Samples may be obtained at this booth, or representatives will send any desired quantity to physicians at their offices or homes.

Goodrich-Wright, Inc., Dallas, Booth 56

All attending members of the medical profession are invited to visit the Goodrich-Wright, Inc., booth, where Planta-B Fortified (the new concept of therapy for the correction of constipation) and other products of research will be exhibited.

Graham Laboratories, Inc., Dallas, Booth 26

Graham Laboratories cordially invites physicians to visit its booth where a representative will be happy to discuss any questions relative to Allergenic Extracts, both diagnostic and therapeutic. Testing sets, treatment sets, regional maps of hay fever plants, and other items will be on display.

Gray Audograph Dictation Systems, Dallas, Booth 21

Gray Audograph Dictation Systems give new hope for overworked medical men. Time can be gained and records kept up to date by dictating all records to the versatile Audograph or PhonAudograph. Efficiency, economy, and convenience are features of great importance, and the Gray Audograph brings the physician instrument dictation at its finest. A proof demonstration is available without obligation.

J. E. Hanger, Inc., St. Louis, Booth 30

Modern prosthetic devices for upper and lower extremity amputees will be displayed by the Hanger organization, which offers a complete service to the amputee. A representative will show the Hanger Suction Socket Limb and the recent improvements for upper extremity prostheses.

Hedgecock Artificial Limb Company, Dallas, Booth 11

The Hedgecock Artificial Limb Company will exhibit the latest improved upper and lower extremity prostheses.

H. J. Heinz Company, Pittsburgh, Booth 7

Heinz Baby Foods provide babies with nutrients for steady growth and sound bodies, and make appetizing meals for older patients and convalescents. The newest Heinz original baby foods are Strained Vegetables, Egg Noodles and Chicken; Strained Chicken Noodle Dinner; Junior Vegetables, Egg Noodles and Chicken; Junior Chicken; and Junior Breakfast —cereal, eggs, and bacon. Nutritional data books will be available.

The Karmac Company, Dallas, Booth 94

Plaster of Paris Bandages and Splints, manufactured by The Karmac Company, a Texas firm, are made entirely by hand according to rigid specifications. Uniform in quality and performance, Karmac Bandages soak quickly and make a strong, light-weight cast. Available in both fast-setting and slow-setting types, the bandages are "Made in Texas by Texans for Texas Surgeons."

R. P. Kincheloe Company, Dallas, Booth 57

Information on Keleket and Continental X-Ray Apparatus, Cambridge Electrocardiographs, and Liebel-Flarsheim physical medicine and BMR equipment will be available. The R. P. Kincheloe Company has specialized in electromedical sales in the Southwest since 1919 and is renowned for its expert technical service.

Lanpar Company, Dallas, Booth 72

Partein, a new protein supplement in powder form providing a variety of amino acid sources in four important proteins and formulated to emphasize the rebuilding of albumin, will be displayed. Two tablespoonfuls provide 100 to 286 per cent of the M.D.R. of all essential amino acids. Partein is pleasant tasting and can be added to various foods. Other products important to protein metabolism will be exhibited.

Lederle Laboratories Division, American Cyanamid Company, New York, Booth 52

Texas physicians are invited to visit the Lederle booth where medical representatives will be in attendance to provide the latest information and literature available on their line. Featured will be Achromycin, Diamox, Vitamins, Pathilon, Varidase, and many other dependable quality products.

Eli Lilly and Company, Indianapolis, Booth 38

Physicians are cordially invited to visit the Lilly exhibit in booth 38. The display will contain information on recent therapeutic developments. Lilly sales people will be in attendance and will welcome your questions about Lilly products.

J. B. Lippincott Company, Philadelphia, Booth 17

The J. B. Lippincott Company will present, for the approval of Texas physicians, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

Lloyd Brothers, Inc., Cincinnati, Booth 73

Roncovite, Doxinate, and Doxinate with Danthron, original products of Lloyd research, will be featured at this display. Lloyd representatives will present the latest clinical studies on Roncovite, the first true hematopoietic stimulant as well as the complete story of Doxinate, the new nonlaxative method of preventing and treating constipation.

Loma Linda Food Company, Arlington, Calif., Booth 53

With years of experience in perfecting a hypoallergenic milk powder and a newly developed concentrated liquid milk, the protein of which is derived from the soy bean

and formulated with other essential additives for babies, children, and adults, the Loma Linda Food Company will welcome doctors to its exhibit. Attendants will be pleased to discuss the values of Soyalac powder and concentrated liquid. Samples will be served.

Lov-E Brassiere Company, Hollywood, Booth 70

Physicians are invited to view the complete line of brassieres designed to provide corrective support for specific breast conditions in exact accordance with the physician's instructions. Also, the new and improved breast prosthesis, the Lov-é "Twin" breast form, will be shown. It provides adjustable weight for perfect balance; it is ideal for all occasion wear, and custom fitted to the individual's need.

J. A. Majors Company, Dallas and Houston, Booth 1

W. B. Saunders publications will be on display for the examination and perusal of Texas doctors. A few of the more recent books will be Campbell, "Urology"; Nadas, "Pediatric Cardiology"; Tracy, "The Doctor as a Witness"; Zimmerman, "Surgical Physiology"; Dorland, "Medical Dictionary," new twenty-third edition; and Cecil, "Specialties in General Practice."

Maltbie Laboratories Division,
Wallace & Tiernan, Inc., Belleville, N. J., Booth 91

Physicians attending the Texas Medical Association's annual session are invited to visit the Maltbie booth to discuss products with the company's representatives. Featured items will be Desenex, the safest and most effective fungicide; Cholan V, for maximal hydrocholeresis with effective spasmolysis; and Bifran, for control of obesity and associated biliary disturbance.

Marion Laboratories, Inc., Kansas City, Booth 71

Marion Laboratories will exhibit a new and interesting product called Duotrate. It provides sustained coronary vasodilation as prophylaxis against angina attack by constant release of pentaerythritol tetranitrate through a unique new controlled release capsule which maintains a constant nitrate blood level, with only one capsule for all day comfort and one capsule for security throughout the night.

The S. E. Massengill Company, Bristol, Tenn., Booth 67

The S. E. Massengill Company extends its wishes for a most successful meeting, and invites Texas doctors to visit its booth and discuss Massengill Pharmaceutical products. The exhibit will feature Adrenosem Salicylate, the unique systemic hemostat; Homagenets, the only homogenized vitamins in solid form; Salcort, a safe, effective anti-arthritic; and Massengill Powder.

Mead Johnson & Company, Evansville, Ind., Booth 98

Specially trained representatives will be ready to tell doctors about the following product "families": Mead Johnson Formula Products Family—including ready-to-use Lactum and Olac for routine infant feeding, as well as Dextri-Maltose; the Deca Vitamin Family—three convenient dosage forms for comprehensive vitamin protection of infants and children; and the Colace Family, a new approach in preventing and treating constipation by keeping stools soft for easy passage.

Medco Products Company, Tulsa, Booth 37

Medco Products presents the Medco-Sonlator, which provides a new concept in therapy by combining muscle stimulation and ultra-sound simultaneously through a single three-way sound applicator. The Medco-Sonlator is a distinct advance in the effectiveness of physical therapy in the office or hospital. Representatives are eager that time spent in the Medco booth will be of value to Texas doctors.

Medical Aids, Inc., Park Ridge, Ill., Booth 69

Medical Aids, Inc., will feature a complete line of pressure bandages, including the well-known Dalzoflex and Primer Combination, recommended in the treatment of leg ulcers and phlebitis; the Nulast Elastic Crepe bandage, constructed of Viscolax rubber threads, Dalmas elastic strapping, which is waterproof, oil and grease resistant; and Litenet and Clays elastic stockings.

Medical Management, Fort Worth and Houston, Booth 28

Medical Management will present Andy Allard and Jack Bailey, who will discuss the business side of medicine in the light of fifteen years' experience as the doctors' doctor. They will give current answers on questions concerning training and pay of personnel, medical contracts, office design, lease contracts, collection psychology, estate building, or any other nonmedical problems in the doctor's office.

The Medical Protective Company,
Fort Wayne, Ind., Booth 20

The "Professional Protection Exclusively" offered by the Medical Protective Company can give doctors prevention, fighting defense, proper protection against loss, individual insurance that safeguards expert testimony, lower incidence of suits, low premiums, specialized services, and 58 years of experience. The average total award to plaintiffs was reduced to $1,415 in 1956.

Merck Sharp & Dohme, Philadelphia, Booth 79

This exhibit will present the newer adrenal cortical steroid preparations in endocrine disorders, collagen diseases, respiratory allergies, eye diseases, and skin conditions. Research developments in the field of antibacterial agents are of clinical significance. Expertly trained personnel will be pleased to discuss advanced clinical reports on a new therapeutic agent which may be described as a "mood stabilizer."

The William S. Merrell Company, Cincinnati, Booth 25

Merrell representatives will discuss Meratran, a new and unique antidepressant that works subtly and smoothly through its action on the subcortical area of the brain. Mr. Bryan Curtis, Mr. T. J. Mahoney, and Mr. Joseph Bristol will be happy to meet Texas physicians.

Metro Med, Inc., Houston, Booth 88

Physicians are cordially invited to visit the Metro Med, Inc., booth, where competent representatives will provide details and samples of Iromic, containing ferrous fumarate. This completely new iron tonic is receiving considerable publicity and interest due to the lack of side effects. Other products of research will be available in sample form.

Mission Pharmacal Company, San Antonio, Booth 62

The Mission Pharmacal Company, manufacturers of fine pharmaceutical tablets such as Fosfree, Iromin-G, Prulet, Fetamin, and Homapin, will welcome Texas physicians at this booth.

C. V. Mosby Company, St. Louis, Booth 74

The C. V. Mosby Company will exhibit its complete line of medical books and journals. Included will be the following recent releases: Gradwohl, "Clinical Laboratory Methods and Diagnosis"; Bard, "Medical Physiology"; Richards, "Surgery for General Practice"; Anderson, "Synopsis of Pathology"; Bray, "Clinical Laboratory Methods"; Harrington, "The Visual Fields"; Key-Conwell, "Management of Fractures, Dislocations, and Sprains"; Dodson, "Urological Surgery"; and Dodson-Hill, "Synopsis of Genitourinary Diseases."

V. Mueller & Company, Chicago, Booth 18

Many V. Mueller instruments will be on display, and doctors will be most welcome to browse through the booth for a firsthand inspection. Instruments for use in the newer operating techniques will be featured.

National Live Stock and Meat Board, Chicago, Booth 78

This exhibit features the recommended daily food intake for adequate nutrition of teenagers, showing their needs for protein and other nutrients to be one-third to one-half more than that of their parents. Educational materials on nutrition may be secured on request.

Nepera Laboratories Division, Yonkers, N. Y., Booth 68

The Nepera exhibit will feature Mandelamine, a specific, well tolerated antiseptic of particular value in treatment of chronic urinary tract infections; Biomydrin Nasal Spray, for effective mucolytic penetrating antibacterial activity, prolonged nasal decongestion, and antiallergic effect; and Choledyl, for treatment of bronchial asthma, bronchospasm, angina pectoris, and congestive heart failure. Choledyl assures high oral theophylline blood levels with minimal side reactions, and rarely produces fastness.

Nursmatic Corporation, Chicago, Booth 54

The Nursmatic Nurser employs the latest technique in baby bottle feeding developed through use of Breast Action Insta-Valve, a small, stainless steel valve used in the nipple. It reduces air swallowing, the basic cause of so-called colic in babies, and most nearly simulates natural nursing. It also is equipped with specially designed slip-on-hood, eliminating the need of inverting the nipple before feeding.

Parke, Davis & Company, Detroit, Booth 19

Medical service members of the Parke, Davis staff will be in attendance for consultation and discussion of various products of particular interest to members of the Association. Important specialties, such as Penicillin S-R, Benadryl, Ambodryl, Chloromycetin, Dilantin Suspension, Vitamins, Eldec, Oxycel, Milontin, Amphedase, and Thrombin Topical will be featured. Doctors are cordially invited to visit this exhibit.

Pfizer Laboratories, Brooklyn, Booth 81

The Pfizer exhibit spotlights its recent and original therapeutic concepts represented by Sigmamycin (brand of Oleandomycin), a combination of Matromycin and Tetracyn, and the newest advance in topical corticosteroid therapy, Magnacort and Neo-Magnacort, the first water soluble corticoid. Also shown will be Moderil, Pfizer's new alkaloid of rauwolfia; Ataraxoid, the only ataraxic-corticoid; Bonamine; and Sterane.

Purdue Frederick Company, New York, Booth 13

The Purdue Frederick Company will feature Senokot, the new nonbulk, nonirritating constipation corrective, which acts selectively on the parasympathetic (Auerbach's) plexus in the large bowel, physiologically stimulating the neuromuscular defecatory reflex; Pre-Mens, the multidimensional premenstrual tension therapy; Somatovite, which increases the appetite and reduces hyperactivity and restlessness; and Sippyplex, the modern comprehensive therapy for peptic ulcer.

Research Products Corporation, Madison, Wis., Booth 40

Research Products Corporation of Madison, Wis., will display its automatic, electric humidifier, the RP Aprilaire. A full size working model will be demonstrated by competent personnel, showing how proper relative humidity can be maintained automatically in the home or office. Test information showing up to 70 per cent efficiency on removal of air-borne bacteria from air passing through the Aprilaire will be available.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C., Booth 43

Physicians attending the Texas Medical Association's annual session are cordially invited to visit the Reynolds exhibit and receive a cigarette case, individually monogrammed, containing a choice of Camel, Winston Filter, Menthol Fresh Salem, or Cavalier King Size Cigarettes.

The Rhinopto Company, Dallas, Booth 96

The Rhinopto Company cordially invites doctors to visit its Apothecary Shop where old mortars and pestles, apothecary jars, and antique pharmaceutical items will be displayed. Samples of Rhinall Nose Drops, Rhinall Nasal Spray, and Rhinopto preparations for the Eye, Ear, Nose, and Throat Profession will be shown.

Richards Manufacturing Company, Memphis, Booth 16

Richards will exhibit fine orthopedic instruments and supplies for fractures. The highest quality items such as Richards Osteotomes, Richards Curettes, Jewett Nails, F. R. Thompson, Eicher, and Moore Prostheses in SMO Stainless, as well as a complete display of intramedullary nails of various patterns will be shown. Mr. Kenneth Pfaff, trained orthopedic consultant, will be in charge.

A. H. Robins Company, Inc., Richmond, Va., Booth 5

The A. H. Robins Company exhibit spotlights Donnatal. This "most prescribed" of all antispasmodic-sedatives is available not only in tablets, capsules, and palatable Elixir, but also in long-acting Extentabs. Also featured will be Allbee with C, capsules providing "saturation dosage" of B complex factors and ascorbic acid, Donnagesic Extentabs, Entozyme tablets, and Robalate tablets and liquid.

J. B. Roerig and Company, Chicago, Booth 41

J. B. Roerig and Company will feature Atarax, the new "Peace of Mind" drug specially indicated for the "more normal" person, to bring relief from everyday tensions and anxieties. Cofeatured with Atarax will be Bonadoxin, the anti-emetic for relief of the nausea and vomiting of pregnancy; also effective in postanesthetic nausea, Menière's syndrome, and postradiation sickness. Literature and samples will be available.

Ross Laboratories, Columbus, Booth 51

Ross Laboratories specializes in current concepts in infant feeding, stressing the critical aspects of preventive care. A Similac representative will be happy to discuss the role of physiologic feeding in providing good growth, sound development, and optimum clinical benefits. Copies of the latest Ross Pediatric Research Conference Reports will be available.

Savage Laboratories, Inc., Houston, Booth 46

Savage Laboratories, Inc., will feature Chromagen, the first injectable combination of cobalt and iron for specific hemopoietic stimulation. Also on display will be Neopavrin, the new smooth muscle antispasmodic which acts directly upon the muscle in spasm, and Spanestrin capsules, the first oral estrogen in timed disintegration form. Representatives of Savage Laboratories will welcome physicians at this booth.

Schering Corporation, Bloomfield, N. J., Booth 34

The Schering exhibit will present the Meti-steroid preparations Metimyd, Meti-derm, Metreton, Sigmagen, Meticorten, and Meticortelone. Clinical and laboratory data demonstrating the advantages of these new steroids in topical and systemic therapy of allergic and inflammatory diseases will be offered. New indications for the Meti-steroids will be presented.

Julius Schmid, Inc., New York, Booth 29

An interesting and informative exhibit will feature Ramses Flexible Cushioned Diaphragm; Ramses Vaginal Jelly; Vagisec Jelly and Liquid, two new products embodying "Carlendacide," the recent development by Carl Henry Davis, M. D., and C. G. Grand for vaginal trichomoniasis therapy; XXXX (Fourex) Skin Condoms; and Ramses and Sheik Rubber Condoms for the control of trichomonal reinfection.

G. D. Searle & Company, Chicago, Booth 100

Texas doctors are invited to visit the Searle booth where representatives will be happy to answer any questions regarding Searle products of research. Featured will be Nilevar, the new Anabolic agent; Rolicton, the new safe, nonmercurial oral diuretic; Vallestril, synthetic estrogen with extremely low incidence of side reactions; Banthine and Pro-Banthine, the standards in anti-cholinergic therapy; and Dramamine, for the prevention and treatment of nauseas.

Smith, Kline & French Laboratories, Philadelphia, Booth 3

The SKF exhibit this year will highlight three new compounds: Compazine for nausea and vomiting and mild to moderate emotional conditions; Sul-Spansion, a liquid "Spansule" preparation for systemic infections; and Ecotrin, a Duentric-coated tablet for conditions requiring long-term aspirin medication. Thorazine and Cytomel will also be featured. Doctors are invited to visit this exhibit for further information and literature.

E. R. Squibb & Sons, New York, Booth 77

E. R. Squibb & Sons has long been a leader in the development of new agents for prevention and treatment of disease. The results of diligent research are available to the medical profession in new products or improvements in products already marketed. At booth 77, representatives of the company will be pleased to present to Texas physicians up-to-date information on these advances.

Swift & Company, Chicago, Booth 23

The sweet flavor goodness of Swift's Premium Ham, ground to a smooth, creamy texture, is the newest variety of Strained Meats for infants. Doctors are invited to taste this new product, as well as the complete line of Swift's meat products, Strained Egg Yolks, and Strained Egg Yolks and Bacon, and to discuss Swift's clinical research program in connection with meat in the infant diet.

Taylor Laboratories, Inc., Houston, Booth 86

Lyophilized Tissue Bank Service including aortas, various arteries, dura mater, and fascia lata will be exhibited and explained by Taylor Laboratories representatives.

Testagar & Company, Inc., Detroit, Booth 55

Testagar & Company, Inc., will assume the manufacture and sales of the Fellows Medical Manufacturing Corporation line of pharmaceutical specialties in the United States. Fellows' Chloral Hydrate products will be featured as well as some new Testagar pharmaceutical specialties.

Texas Pharmacal Company, San Antonio, Booth 83

The Texas Pharmacal Company will display a number of distinctive pharmaceutical preparations.

S. J. Tutag & Company, Detroit, Booth 10

S. J. Tutag & Company will present the new Quadamine. Quadamine is a sustained release Granucap (patent pending) containing an appetite depressant—mood elevator, a mild sedative to counteract central nervous stimulation of amphetamine, six essential vitamins, and six important minerals. Quadamine is especially designed for use in obesity, anxiety states, and nervous or agitated states.

The Uniform Manufacturing Company, Fort Worth, Booth 36

Texas physicians are invited to visit booth 36 and inspect the new style office coat. There are many designs and materials from which to choose, and all are made especially for doctors. The Uniform Manufacturing Company invites doctors' opinions of its new patient gown, which is designed to save time and spoiled x-ray film caused by fasteners and thick layers.

U. S. Vitamin Corporation, New York, Booth 31

This exhibit will feature Arlidin, a new, relatively safe, effective vasodilator with three unique actions: (1) dilates predominantly small blood vessels of skeletal muscle, (2) increases circulating blood volume, (3) increases cardiac output. Arlidin (Nylidrin HCl, NNR) is indicated in intermittent claudication and a wide range of functional and obliterative disorders of peripheral vascular insufficiency.

Westwood Pharmaceuticals, Buffalo, Booth 50

Fostex Cream and Fostex Cake are new, easy to use, therapeutically effective cleansing medications for the treatment of dandruff, acne vulgaris, and seborrheic dermatitis. They contain Sebuyltic, a unique combination of penetrating anionic soapless cleansers and wetting agents which are highly antiseborrheic, and exert antibacterial and keratolytic effects.

Wilson X-Ray and Surgical Company, Austin, Booth 14

Again, Wilson X-Ray and Surgical Company is proud to present the latest developments in the physical medicine and surgical supply field. The Liebel-Flarsheim Basal Meter, the Direct Writing Cardiograph, and other items of interest will be on display. Representatives will appreciate the opportunity to show these products to Texas physicians.

Winthrop Laboratories, Inc., New York, Booth 90

Winthrop Laboratories, Inc., will feature two drugs, Isuprel, an efficient and convenient bronchodilator in tablet form for sublingual use and solution for inhalation, and Levophed, the true vasoconstrictor hormone of the adrenal medulla, for the maintenance of blood pressure in shock and other acute hypotensive states.

Wyeth Laboratories, Philadelphia, Booth 35

Wyeth will exhibit Pen Vee Oral (Penicillin V) Tablets, the oral penicillin with injectable performance, which is acid-stable and resists destruction by acid in the stomach. Absorption from the duodenum is maximal; therefore, high blood levels are assured. Penicillin V also is available as benzathine salt in Pen Vee Suspension (Benzathine Penicillin V). Wyeth also will feature Equanil (Meprobamate), a unique anti-anxiety factor with marked muscle relaxing properties, for treatment of anxiety and tenseness.

Zimmer Manufacturing Company, Warsaw, Ind., Booth 65

Texas doctors are cordially invited to visit Zimmer booth, number 65, where many new items for the treatment of fractures will be displayed. Mr. W. M. LaMack, 1824 Milford, Houston, and Mr. W. J. LaMack, 3324 Darvany Drive, Dallas, will be in charge to explain these new items.

Enjoy Yourself!

PRESIDENT'S DINNER PARTY

Followed by

Dancing and Entertainment

8 p. m. April 30 — Statler Hilton Hotel

Tickets on Sale, Registration Desk

RELATED ORGANIZATIONS

The scientific programs of the specialty societies outlined hereafter are open to any member of the Texas Medical Association.

TEXAS AIR-MEDICS ASSOCIATION

Sunday, April 28, 12:00 noon
Parlor D, Hotel Adolphus

President—Charles W. Klanke, Houston.
President-Elect—W. D. Marrs, Fort Worth.
Secretary-Treasurer—C. F. Miller, Waco.
Directors—Virgil M. Payne, Dallas; Phil Thomas, Little Rock, Ark.; and R. Henry Harrison, Bryan.

1. (12:00) *Registration.*
2. (2:00) *Opening Session.* VIRGIL M. PAYNE, JR., Dallas, Moderator.
3. (2:15) *Introduction of Visitors.*
4. (2:30) *President's Address.* CHARLES W. KLANKE, Houston.
5. (3:00) *Motion Sickness Drug Therapy* (motion picture). COL. L. J. MILCH, Randolph Field.
6. (3:20) *Discussion Period.*
7. (3:30) *Pressurized Aircraft.* W. A. OSTENDORF, Fort Worth.
8. (4:00) *Aircraft Noise and Its Side Effects.* COL. R. N. KRAUSE, Randolph Field.
9. (5:00) *Board of Directors Meeting.*

6:00 p. m.
Dallas Athletic Club Country Club

10. (6:00) *Cocktail Party.*
11. (7:00) *Dinner Party.*

Monday, April 29, 10:00 a. m.
Parlor C, Hotel Adolphus

12. (10:00) *Annual Business Meeting.*
13. (10:30) *Legal Problems in Medical Certification of Airmen.* MR. W. A. CRAWFORD, Fort Worth.
14. (11:00) *Panel Discussion: Civil Aeronautics Administration Problems.* W. A. OSTENDORF, Fort Worth, Moderator.

12:00 noon, Parlor D

15. (12:00) *Luncheon.*

2:00 p. m., Parlor C

16. (2:00) *Aerotitis Media.* C. C. CODY III, Houston.
17. (2:30) *Psychology in Aviation Medicine.* BEATRIX COBB, Ph.D., Houston.
18. (3:00) *Comments on American Board of Aviation Medicine.* PHILIP M. MARKLE, Memphis, Tenn.
19. (3:30) *Presentation of New Officers.* CHARLES W. KLANKE, Houston.

TEXAS CHAPTER, AMERICAN ASSOCIATION OF PUBLIC HEALTH PHYSICIANS

Sunday, April 28, 6:30 p. m.
Tally Ho Room, Baker Hotel

President—W. V. Bradshaw, Jr., Fort Worth.
Secretary—Allan R. Doane, Austin.

1. (6:30) *Dinner Meeting and Address: Public Health—Its Promise for the Future.*
WILSON G. SMILLIE, New York, N. Y.
2. (7:30) *Business Meeting:*
a. *Reports of Committees.*
b. *Election of Officers.*

TEXAS CHAPTER, AMERICAN COLLEGE OF CHEST PHYSICIANS

Sunday, April 28, 9:00 a. m.
Danish Room, Hotel Adolphus

President—Walter C. Brown, Corpus Christi.
First Vice-President—John A. Wiggins, Jr., Fort Worth.
Second Vice-President—J. Otis Armstrong, Dallas.
Secretary-Treasurer—Lawrence M. Shefts, San Antonio.
Program Chairman—Robert B. Morrison, Austin.

Walter C. Brown, Corpus Christi, Chairman.

1. (9:00) *Preliminary Report on Treatment of Diabetes Mellitus with Orinase in Pulmonary Tuberculosis.* E. H. ROBERTS, San Antonio, and PAUL E. JOHNSON, San Antonio.
2. (9:30) *Office Bronchography.*
JOHN A. WIGGINS, Fort Worth.
3. (10:00) *New Approach to Funnel Chest Repair with External Braces.*
ROBERT WILKENS, Corpus Christi.
4. (10:30) *Recess.*
5. (10:45) *Diagnosis and Management of Surgical Diseases of the Chest in Children.*
THOMAS H. BURFORD, St. Louis, Mo.
6. (11:15) *Panel Discussion: The Management of Inoperable Lung Cancer.*
ROBERT B. MORRISON, Austin, Moderator; THOMAS H. BURFORD, St. Louis, Mo.; HOWARD T. BARKLEY, Houston; CLIFF HOWE, Houston; JOHN MALLAMS, Dallas; DAVID MCCULLOUGH, San Antonio; MARTIN SCHNEIDER, Galveston; and ROBERT R. SHAW, Dallas.

12:30 p. m., Roof Garden

7. (12:30) *Luncheon and Business Meeting. Address of President of the American College of Chest Physicians.*
HERMAN J. MOERSCH, Rochester, Minn.

2:00 p. m., Danish Room

W. D. Anderson, San Angelo, Chairman.

8. (2:00) *The Value of Endoscopy in the Diagnosis of Bronchoesophageal Disease* (Hendricks Memorial Lecture).
HERMAN J. MOERSCH, Rochester, Minn.
9. (2:45) *Single Stage Thoracoplasty Using a Simple Technique to Control Paradoxical Chest Wall Motion.*
BUFORD H. BURCH, Patton, Calif., and LAWRENCE M. SHEFTS, San Antonio.
10. (3:00) *Observations on the Use of an Improved Flexible-Tipped Bronchoscopic Aspirating Tube.*
ROBERT B. MORRISON, Austin.
11. (3:10) *"Professor Miller's X-Ray Quiz."*
JARRELL E. MILLER, Dallas.

TEXAS DERMATOLOGICAL SOCIETY

Monday, April 29, 10:15 a. m.
Cactus Room, Hotel Adolphus

President—Thomas L. Shields, Fort Worth.
Vice-President—D. Shelton Blair, Dallas.
Secretary-Treasurer—E. N. Walsh, Fort Worth.
Program Chairman—Eugene P. Schoch, Jr., Austin.

1. (10:15) *Use and Misuse of Steroids in Dermatology.*
LOUIS A. BRUNSTING, Rochester, Minn.
(10:35) *Open Discussion.*
2. (10:45) *Calmium Shampoo Treatment of Seborrheic Dermatitis.* FRED MULLINS, Galveston.
(11:05) *Open Discussion.*
3. (11:15) *New Uses for Surface Active Agents.*
JOHN KNOX, Houston.
(11:35) *Open Discussion.*
4. (11:45) *Plantar Warts; Their Diagnosis and Treatment.*
COL. GEORGE PRAZAK, San Antonio.
(12:05) *Open Discussion.*

TEXAS DIABETES ASSOCIATION

Sunday, April 28, 8:00 a. m.
French Room, Hotel Adolphus

President—Edwin L. Rippy, Dallas.
Secretary—Richard E. Nitschke, San Antonio.

1. (8:00) *Registration.*
2. (9:00) *Principles of Therapy in Mild and Early Diabetes.* JAMES A. GREENE, Houston.
3. (9:30) *The Clinic Diabetic Patient as Opposed to the Private Diabetic.*
HAROLD M. DOBSON, Houston.
4. (10:00) *Clinical Results in the Treatment of Diabetes Mellitus with Oral Sulfonyl Urea Derivatives.*
ROGER UNGER, Dallas.
5. (10:30) *Classification of Surgical Complications of the Lower Extremities.*
FREDERICK W. WILLIAMS, New York.
6. (11:00) *Two New Approaches to Earlier Diagnosis of Diabetes Mellitus.*
HOLBROOKE S. SELTZER, Dallas.
7. (11:30) *Kimmelstiel-Wilson Disease.*
GEORGE M. JONES, Dallas.

12:30 p. m., Parlor A

8. *Luncheon and Panel Discussion: What Physicians Should Know About the Diabetic Diet.*
EDWIN L. RIPPY, Moderator; by invitation: ROSA MACRI ADAIR (Nutrition Consultant), EILEEN WILLIAMS (Therapeutic Dietitian), JUDY BARNEY (Therapeutic Dietitian), and MARY FADEFF (Therapeutic Dietitian), Dallas.

2:00 p. m., French Room

9. (2:00) *Business Meeting and Election of Officers.*
10. (2:30) *Summer Camps for Diabetic Children* (motion picture and discussion).
J. SHIRLEY SWEENEY, Dallas.

11. (3:00) *Insulin Resistance in Diabetes.*
HENRY B. MULHOLLAND, Charlottesville, Va.

12. (3:30) *Genitourinary Tract Abnormalities in Diabetes.*
HARRY LIPSCOMB, Houston.

13. (4:00) *Management of the Diabetic Patient Preoperatively and Postoperatively.*
FREDERICK W. WILLIAMS, New York.

14. (4:30) *The Prevention and Management of Diabetic Coma.* LEONARD J. FLOHR, Dallas.

TEXAS GERIATRICS SOCIETY

Tuesday, April 30, 10:00 a. m.
Texas Room, Baker Hotel

President—Wendell D. Gingrich, Galveston.
President-Elect—Martin S. Buehler, Dallas.
Vice-President—Charles S. Gowen, Shreveport, La.
Secretary—J. O. S. Holt, Dallas.

(The Board of Directors will have a luncheon Monday, April 29, at 12:00 noon in the Camellia Room, Baker Hotel.)

1. (10:00) *Scientific Session.*
   a. *Survey of Facilities and Services Available to Elderly People in Texas.*
   FREDERICK G. DORSEY, Houston; ELIZABETH GENTRY, Austin; HENRY A. CROMWELL, Houston; NORMABELLE CONROY, San Antonio; and WENDELL D. GINGRICH, Galveston.
   b. *The Aging Lung.*
   JOHN CHAPMAN, Dallas.
   c. *Psychiatric Research in Aging.*
   JACKSON A. SMITH, Omaha, Neb.
   d. *The Increasing Geriatric Significance of Carcinoma of the Prostate.*
   IAN THOMPSON, Galveston.
   e. *Some Aspects of Hypertension.*
   ARTHUR GROLLMAN, Dallas.

2. (12:00) *Luncheon Jointly with the Section on Public Health.*
Medical Aspects of Aging and Long-Term Illness.
HENRY B. MULHOLLAND, Charlottesville, Va.

1:30 p. m., Camellia Room

3. (1:30) *Business Meeting.*

TEXAS HEART ASSOCIATION

Sunday, April 28, 9:00 a. m.
Terrace, Baker Hotel

President—D. D. Warren, Waco.
President-Elect—James A. Greene, Houston.
Vice-President—W. B. Adamson, Abilene.
Vice-President—Robert E. Leslie, El Campo.
Secretary-Treasurer—Mr. Charles L. Bybee, Houston.
Program Chairman—Kleberg Eckhardt, Corpus Christi.
Executive Director—Mr. Edgar M. Brown, Houston.

(On Saturday, April 27, the Executive Committee will meet at 10 a. m. with a luncheon at 12 noon; the Board of Directors will meet at 2 p. m.; and the Annual Awards Dinner for the Board of Directors, Distinguished Guests, and Wives will be held at 6 p. m., all of these events being in the Texas Room, Baker Hotel.)

1. (9:00) *Registration.*

2. (9:30) *Coronary Insufficiency in the Young Adult.*
BLAIR P. COLEMAN, Wichita Falls.

3. (9:50) *The Late Management of Myocardial Infarction.*
J. RODERICK KITCHELL, Philadelphia, Pa.

4. (10:30) *Medical and Surgical Complications of Coronary Artery Disease.*
DON W. CHAPMAN, Houston.

5. (10:50) *Intermission.*

6. (11:00) *Concepts and Misconcepts in Atherosclerosis.*
HAROLD DOBSON, Houston.

7. (11:20) *Selection of Patients for Mitral Valvular Surgery: Based on 1,000 Cases Followed from One to Seven Years.*
LAURENCE B. ELLIS, Boston, Mass.

8. (12:00) *Luncheon.*

9. (1:30) *Business Meeting.*

10. (2:00) *Application of Temporary Extracorporeal Circulation to Surgical Treatment of Cardiovascular Disease.* DENTON A. COOLEY, Houston.

11. (2:30) *Problems Encountered in Selective Angiocardiography.*
ANTONIO RODRIGUEZ-ALVAREZ and GLORIA MARTINEZ DE RODRIGUEZ, Fort Worth.

12. (2:50) *Paroxysmal Supraventricular Tachycardia Complicating Organic Heart Disease.*
JAMES C. WRIGHT, MILTON R. HEJTMANCIK, ALLEN J. SHIELDS, W. CONE JOHNSON, and GEORGE R. HERRMANN, Galveston.

13. (3:10) *Practical Application of the Valsalva Maneuver in the Differential Diagnosis of Dyspnea.*
J. ROBERT SHELL, NICHOLAS C. HIGHTOWER, and DON J. LYNCH, Temple.

14. (3:30) *Cor Pulmonale.* J. K. ALEXANDER and EDWARD DENNIS, Houston.

15. (3:50) *A Clinical Study of Rapid A-V Conduction Based on 80 Cases.*
MILTON R. HEJTMANCIK, GEORGE R. HERRMANN, and J. R. OATES, Galveston, and T. M. RUNGE, Austin.

16. (4:10) *The Pulse Duplicator Machine.*
J. RODERICK KITCHELL, Philadelphia, Pa.

TEXAS INDUSTRIAL MEDICAL ASSOCIATION

Tuesday, April 30, 12:00 noon
Hotel Adolphus

President—V. C. Baird, Houston.
President-Elect—Robert J. Potts, Dallas.
Vice-President—W. H. Hamrick, Houston.
Secretary-Treasurer—Robert A. Wise, Houston.

1. (12:00) *Field Trip to Chance-Vought Aircraft Plant.* (Tickets must be secured before 10:00 a. m.; they will be distributed near the Texas Medical Association Registration Desk, Hotel Adolphus. Transportation will be available at the hotel.)

5:00 to 6:00 p. m., Parlor C.

2. (5:00) *Business Meeting and Cocktails.*

TEXAS NEUROPSYCHIATRIC ASSOCIATION

Sunday, April 28, 8:30 a. m.
Cactus Room, Hotel Adolphus

President—John L. Otto, Galveston.
Vice-President—Bruce H. Beard, Fort Worth.
Secretary-Treasurer—Clarence S. Hoekstra, Dallas.

1. (8:30) *Registration.*
2. (8:50) *Scientific Session, Opening Remarks.* JOHN L. OTTO, Galveston, Presiding.
3. (9:00) *The Psychiatrist as an Administrator.* SAMUEL A. HOERSTER, JR., Austin.
4. (9:30) *The Value of Succinylcholine in Electro-Convulsive Therapy and Laryngospasm.* GEORGE J. THOMAS, Pittsburgh, Pa.
5. (9:55) *Experimental Approach to Diabetic Neuropathy.* SVEN G. ELIASSON, Dallas.
6. (10:30) *Psychic Driving.* D. EWEN CAMERON, Montreal, Canada.
7. (11:15) *Business Session, Texas District Branch Society, American Psychiatric Association.*
8. (11:30) *Business Session, Texas Neuropsychiatric Association.*
9. (12:30) *Subscription Luncheon.*
10. (2:00) *Scientific Session, Opening Remarks.* BRUCE H. BEARD, Fort Worth, Presiding.
11. (2:00) *Medical Aspects of Opiate Addiction.* HARRIS ISBELL, Lexington, Ky.
12. (2:30) *The Child, Normal or Abnormal.* REYNOLD A. JENSEN, Minneapolis, Minn.
13. (3:00) *Hypothermia in Treatment of Disorders of the Nervous System.* SAMUEL R. SNODGRASS and EUGENE H. RENTSCHLER, Galveston.
14. (3:30) *The Modern Department of Psychiatry in the General Hospital.* D. EWEN CAMERON, Montreal, Canada.
15. (4:15) *Business Session and Election of Officers.*
16. (5:00) *Adjourn.*

6:30 to 7:30 p. m., Cactus Room

17. (6:30) *Reception and Cocktail Party for Members, Guests, and Their Wives.* Members of Dallas Neuropsychiatric Society, hosts.

TEXAS OPHTHALMOLOGICAL ASSOCIATION

Tuesday, April 30, 10:00 a. m.
Parlor A, Hotel Adolphus

President—Thomas J. Vanzant, Houston.
Vice-President—C. Harold Beasley, Fort Worth.
Secretary—Louis Daily, Houston.
Treasurer—George W. Burch, Tyler.

[Members of the Texas Ophthalmological Association will attend a refresher course, Unilateral Exophthalmos, by Dr. A. D. Ruedemann, Sr., Detroit, from 8:15 until 9:45 a. m. (p. 195). Members also will participate in the Section on Eye, Ear, Nose, and Throat meeting at 2:00 p. m. in Parlor A of Hotel Adolphus (p. 200).]

1. (10:00) *Dangers of the Retained Blind Eye.* CARY LEGETT, Austin.
2. (10:30) *Abuse of Radiation in Eye Diseases.* HUGH L. ORMSBY, Toronto, Canada.
3. (11:30) *Detection of Intraocular Tumors with Radioactive Phosphorus.* E. W. GRIFFEY, HERBERT ALLEN (by courtesy), and HENRY WAHLEN (by courtesy), Houston.

12:30 p. m., Parlor D

4. (12:30) *Luncheon and Business Meeting.*

TEXAS ORTHOPEDIC ASSOCIATION

Monday, April 29, 10:00 a. m.
Roof Garden, Hotel Adolphus

President—John J. Hinchey, San Antonio.
Vice-President—Lawrence Griffin, Austin.
Secretary-Treasurer—Margaret Watkins, Dallas.
Program Chairman—B. C. Halley, Jr., Dallas.

1. *Poliomyelitis in Dallas, 1956, and Its Relation to the Salk Vaccine.* CHARLES F. GREGORY, Dallas.
2. *Management of Congenital Dysplasia and Congenital Dislocation of the Hip.* H. RELTON MCCARROLL, St. Louis, Mo.
3. *Tissue Culture Compression Studies on Bone Cells.* T. A. SHINDLER, Houston.
4. *Importance of Joint Motion in the Treatment of Fractures.* PRESTON A. WADE, New York, N. Y.
5. *Chamley Type Arthroplasty of the Hip.* H. H. BRINDLEY, Temple.

12:30 p. m.

6. *Luncheon.*

2:30 p. m.
Southwestern Medical School
Of the University of Texas

7. *President's Address.* JOHN J. HINCHEY, San Antonio.
8. *Arthrodesis of the Shoulder—A New Method.* D. C. HUCHERSON, Houston.
9. *Panel Discussion: Diagnostic and Therapeutic Orthopedic Problems.* C. F. GREGORY, Dallas, Moderator; H. RELTON MCCARROLL, St. Louis, Mo.; LOUIS BRECK, El Paso; HENRY C. MCDONALD, Fort Worth; and DUNCAN MCKEEVER, Houston.

TEXAS SOCIETY OF ANESTHESIOLOGISTS

Sunday, April 28, 9:00 a. m.
English Room, Baker Hotel

President—Charles R. Allen, Galveston.
President-Elect—J. D. McCulley, Houston.
Vice-President—M. M. Rosenzweig, San Antonio.
Secretary-Treasurer—Randle J. Brady, Houston.
Program Co-Chairmen—M. T. Jenkins and Joe B. Wood, Dallas.

(Saturday, April 27, there will be a cocktail party in the English Room, Baker Hotel, at 6:30 p. m. This will be followed by a seated dinner at 8 p. m. in Banquet Rooms 1, 2, and 3.)

1. (9:00) *President's Address.* CHARLES R. ALLEN, Galveston.
2. (9:30) *Mechanical Pulmonary Ventilation.* WILLIAM S. DERRICK, Houston.

(9:50) Discussion.

3. (10:00) *Mental Changes Following Major Anesthetic and Surgical Procedures.*
MORRIS J. FOGELMAN, Dallas.

(10:20) Discussion.

4. (10:30) *Coffee Break.*

5. (11:00) *Trigger Points in Pain: Dermatomes, Sclerotomes, and Myotomes.*
KARL W. ERWIN, Dallas.

(11:20) Discussion.

6. (11:30) *Anesthesia for Eye Surgery.*
GEORGE J. THOMAS, Pittsburgh, Pa.

12:00 noon, Texos Room

7. (12:00) *Luncheon.*

2:00 p. m., English Room

8. (2:00) *Hypothermia During Surgery.*
ROBERT W. VIRTUE, Denver, Colo.

9. (3:15) *Business Meeting.*

TEXAS SOCIETY OF GASTROENTEROLOGISTS AND PROCTOLOGISTS

Sundoy, April 28, 2:00 p. m.
Regency Room, Hotel Adolphus

President—John McGivney, Galveston.
First Vice-President—N. C. Hightower, Temple.
Second Vice-President—F. W. Wilson, Luling.
Secretary—O. P. Griffin, Fort Worth.

1. (2:00) *Polycystic Liver Disease.*
CHARLES ROBINSON, Fort Worth.

(2:20) *Open Discussion.*

2. (2:30) *Management of Congenital Megacolon.*
GRAY CARTER, Dallas.

(2:50) *Open Discussion.*

3. (3:00) *Ulceration of the Rectum and Terminal Portion of the Colon; Significance in the Absence of Malignant Disease and Chronic Ulcerative Colitis.*
JOHN R. HILL, Rochester, Minn.

(3:30) *Question and Answer Period.*

4. (3:45) *Management of the Complications of Chronic Ulcerative Colitis.*
N. C. HIGHTOWER, Temple.

(4:05) *Open Discussion.*

5. (4:15) *Amebiasis: Its Pseudo Surgical Appearance.*
J. WALKER DAVIS, San Antonio.

6. (5:00) *Business Meeting and Election of Officers.*

6:30 p. m., Roof Gorden

7. (6:30) *Cocktail Party.*

8. (8:00) *Banquet and Scientific Presentation: Charlatanism in Colonic and Rectal Diseases.*
JOHN MCGIVNEY, Galveston.

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TEXAS SOCIETY OF PATHOLOGISTS, INC.

Tuesday, April 30, 5:00 p. m.
Banquet Room 5, Boker Hotel

President—Lloyd R. Hershberger, San Angelo.
President-Elect—John H. Childers, Galveston.
Vice-President—Maynard Hart, El Paso.
Secretary-Treasurer—Mervin H. Grossman, Dallas.
A. S. C. P. Councilor—Jack P. Abbott, Houston.

[The Texas Society of Pathologists will have its scientific session with the Section on Clinical Pathology in Banquet Room 5, Baker Hotel, Monday, April 29, 2:00 to 5:00 p. m., and Tuesday, April 30, 2:00 to 5:00 p. m. (p. 201).]

1. (5:00) *Business Meeting.*

TEXAS SOCIETY OF PLASTIC SURGEONS

Soturday, April 27, 9:00 o. m.
Porlor D, Hotel Adolphus

President—Thomas D. Cronin, Houston.
Vice-President—Truman G. Blocker, Galveston.
Secretary-Treasurer—Steve R. Lewis, Galveston.

1. (9:00) *Review of Keloid Problem.*
STEVE LEWIS, Galveston.

(9:15) *Open Discussion.*

2. (9:25) *Dermal Grafts, A Resurfacing Substance.*
DEAN C. KIPP, Dallas.

3. (9:40) *Dermis-Skin Graft as a Substitute for Flaps.*
YOUEL C. SMITH, JR., Corpus Christi.

(9:55) *Open Discussion.*

4. (10:15) *Orbital Reconstruction, Case Report.*
JOHN B. PATTERSON, Fort Worth.

(10:25) *Open Discussion.*

5. (10:35) *Reconstruction of Hog Bite of Face.*
SANFORD GLANZ, Corpus Christi.

(10:45) *Open Discussion.*

6. (11:00) *Intermission.*

7. (11:15) *Mensuration in Transplantation Mammaplasty.*
BROMLEY S. FREEMAN, Houston.

(11:30) *Open Discussion.*

8. (11:40) *Surgical Aspects of Conditions of the Nail.*
BARON HARDY, Houston.

(11:55) *Open Discussion.*

9. (12:05) *General Discussion of Problem Cases.*

12:30 p. m., Porlor A

10. (12:30) *Luncheon.*

1:30 p. m., Parlor D

11. (1:30) *The Technique and Value of Soft Palate X-Rays in Cleft Palate and Other Speech Problems.*
RAYMOND O. BRAUER, Houston.

(1:45) *Open Discussion.*

12. (1:55) *The Cleft Palate Clinic.*
WILLARD C. SELLMAN, Dallas.

13. (2:10) *Open Discussion.*

14. (2:20) *Intermission.*

15. (2:30) *Business Meeting.*

TEXAS TRAUMATIC SURGICAL SOCIETY

Sunday, April 27, 10:00 a. m.
Room 432, Baker Hotel

President—Russell Holt, El Paso.
Vice-President—G. V. Brindley, Jr., Temple.
Secretary-Treasurer—W. D. Marrs, Fort Worth.

1. *Business Meeting.*
2. *Prevention and Treatment of Lead Absorption.* RUSSELL HOLT, El Paso.
   Discussion: M. F. MASON, Ph. D., Dallas.
3. *Memorial to Dr. J. H. Dorman.*

2:00 p. m., Room 432

4. *Treatment of Fractures of the Forearm.* H. RELTON MCCARROLL, St. Louis, Mo.
5. *Panel Discussion: Treatment of Injuries to the Hand.* J. ROBERT COCHRAN, Fort Worth, Moderator; LOUIS W. BRECK, El Paso; and SANFORD GLANZ, Corpus Christi.
6. *Care of Patients with Multiple Injuries.* PRESTON A. WADE, New York, N. Y.
7. *Election of Officers.*
8. *Comments by the President.*

6:00 p. m., Texas Room

9. *Cocktail Party for Members and Their Wives.*

CONFERENCE OF CITY AND COUNTY HEALTH OFFICERS

Monday, April 29, 2:00 p. m.
Texas Room, Baker Hotel

Chairman—Henry A. Holle, Austin.

1. (2:00) *Convalescent Homes and Their Place in the Medical Care of the Community.* WILSON G. SMILLIE, New York, N. Y.
2. (2:30) *The Future Community Problem of Chronic Disease.* H. E. SMITH, Austin.
3. (3:00) *Ornithosis Among Poultry Dressing Plant Workers.* FRED K. LAURENTZ, Houston.
4. (3:30) *Recess.*
5. (4:00) *Poliomyelitis Surveillance.* ROBERT A. ENGLES, Austin.

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Following are the officers, councils, and committees of the Texas Medical Association for the year 1956-1957 with the year in which their terms of office expire indicated in parentheses.

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Charles P. Hardwicke, Austin, Vice-Speaker of the House of Delegates.

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Fifth District: Robert F. Gossett, San Antonio (1959); Vacancy, Vice-Councilor.
Sixth District: F. W. Yeager, Corpus Christi (1959); S. W. Bohmfalk, Weslaco, Vice-Councilor.
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For Dr. Robert W. Virtue.—J. B. Wood.
For Dr. Preston A. Wade.—Mark L. Welch.
For Dr. Frederick W. Williams.—Edwin L. Rippy.
For Dr. Wolf Zuelzer.—E. L. Pratt and Gladys Fashena.

Caused by the death of Dr. Bailey R. Collins, Wichita Falls, November 5, 1956.

New Committee on Medicare Serves Association Members

A Committee on Medicare has been appointed by the Board of Trustees of the Texas Medical Association to review cases involving complaints as well as differences of professional opinion and misunderstandings which might arise in conjunction with the Medicare program. The committee also will advise and assist the Texas Medical Association; Blue Shield of Texas, the designated fiscal agent; and the Department of Defense on matters within the scope of the Medicare program.

The six man committee covers various fields of practice, and additional specialties are represented by 10 alternate members. With Dr. Andrew B. Small as chairman, the committee consists of the following: representing surgery, Dr. Small with Dr. J. Warner Duckett as alternate; radiology, Dr. Glenn D. Carlson with Dr. Tom Bond as alternate; internal medicine, Dr. J. Morris Horn with Dr. Martin Buehler as alternate; general practice, Dr. Mayo Tenery with Dr. Taylor T. Pickett as alternate; obstetrics and gynecology, Dr. F. J. Sebastian with Dr. W. K. Strother, Jr., as alternate; and pediatrics, Dr. George R. Branch. General alternate members of the committee are Dr. J. L. Goforth, whose specialty is pathology, and Dr. M. T. Jenkins, Dr. J. B. Wood; and Dr. O. F. Bush, all of whom specialize in anesthesiology. All members and alternate members of the committee are from Dallas or surrounding areas; Dr. Bond is from Fort Worth, Dr. Tenery from Waxahachie, and Dr. Pickett from Garland.

The committee already has met once and will hold additional meetings in Dallas as case load demands, as suggested by the medical director of Blue Shield.

★ American Medical Association

Tax Booklet Available

A 38 page booklet, "Federal Income Tax Liability of Physicians" now is available from the Texas Medical Association, 1801 North Lamar, Austin. These booklets are published by the American Medical Association's law department, and cover business entertainment expenses, deductions for expenses incurred in taking postgraduate courses, deductions for maintaining an office at home, and other topics. These booklets are available on request without charge.

POLIO CONFERENCE PAVES WAY FOR LOCAL INOCULATION POLICIES

A national meeting of state and territorial medical association representatives, called by the American Medical Association's Board of Trustees late in January, engendered much enthusiasm for the AMA to lead a campaign within the medical profession to get everyone under 40 years of age inoculated with Salk vaccine before the 1957 poliomyelitis season arrives. Dr. A. L. Delaney, Liberty, represented the Texas Medical Association, and reported on the meeting.

It was agreed that methods of implementing this campaign could be worked out most effectively at the local level. In Texas, many county medical societies already had made definite policies regarding the vaccine; some societies sponsored free inoculations for school children and indigents, others helped with community-wide programs, and others continued the established policy of giving free shots to indigents. After the national conference, some societies continued their programs and some altered them. Many new programs or policies have been initiated recently.

Communitywide Inoculations

Grayson County Society, in the interest of improved public health conditions in the county, has announced that it is willing to approve and assist any recognized community organization which might wish to sponsor a nonprofit poliomyelitis inoculation clinic. Going one step further, *Comal County Society* voted to sponsor community inoculations, but details were incomplete as of mid-February. Vaccine from the Texas State Department of Health is being utilized in *Llano, Burnet,* and *Angelina Counties; Llano* physicians are giving inoculations at a very low cost, charging only for their services; *Burnet* doctors are giving the vaccine entirely free to all who request it; and *Angelina County* physicians are using federal vaccine for a free clinic to inoculate all persons from 3 months to 19 years of age and pregnant women. Salk inoculations now are mandatory before entrance in the Burnet schools. The *Angelina County* program is supplemented by publicity to the effect that all persons should be vaccinated and that private physicians will charge the regular office fee to their patients.

Walker County Society publicized that all indigent patients could get free vaccinations at any doctor's office. This program included all those in the 6 months to 21 years age bracket.

Similar attitudes were voiced by *Bosque* and *McLennan Counties Societies;* both decided to continue administering Salk vaccine to private patients and to make immunization available to indigents free. *Bosque County* doctors reduced the price of vaccination to private patients, have recommended through the newspapers that children and young adults be inoculated, and have pledged support to the county health nurse and the schools to see that all indigents are immunized.

School Programs

One solution to the problem of free versus paid vaccinations has been to give inoculations free to school children and indigents, and at a reasonable fee to others. *Trinity, Smith, Gregg, Frio, Hopkins-Franklin,* and *Denton Counties* are either sponsoring or cooperating in programs to inoculate all school children in their areas, and are urging all persons to go to their private physicians to receive immunizations at a reasonable cost ($4 per shot is the price most often mentioned). In some counties, these school programs are under the direction of the county health officer; in others, the county society has taken the lead in organizing and carrying them out. Variations also exist in the number of shots which will be given free. Some counties have arranged to give only the first two inoculations but will recommend strongly that all who receive them go to their family doctors for the third dose. *Gregg County* plans to provide only the first shot free of charge, while *Hopkins-Franklin Counties* will supply the entire series at no cost to school children and indigents.

In *Denton County,* all school children who received the written consent of their parents were given the first and

COMMENTS FROM THE COUNTIES

I feel that we will have good news coverage for our county program. . . . Lay comment has been good for the most part, but there are those few who gripe because we aren't giving the third shot free and didn't bring the first two to their doorstep.—*D. K. Boyd, Denton.*

We do not think that these shots should be administered free any more than we should undertake to feed [our patients] free. We have never turned anyone down because he could not pay, and we have not asked the state or anyone else to donate vaccine when we did not get paid for it.—*H. V. Hedges, Hico.*

After two episodes of mass immunization here, we feel that this procedure is best carried out in the physician's office. Personally, I am administering [Salk vaccine] on liberal credit terms to those who are hard up, and free to truly indigent children.—*Emory D. Hollar, Vernon.*

Our society would like to avoid the situation wherein industrial concerns will institute a vaccination program and ask a physician to come in and give the injections. Such a program encourages socialization of medicine in an indirect manner, and puts the public in a frame of mind to expect wholesale disbursements of the benefits of any new discovery in the medical field.—*Max Baldridge, Texarkana.*

In recognition of the fact that the public participation in the Salk vaccine inoculation program against poliomyelitis has fallen far below expectation, and in the interest of improved public health conditions in the county, the Grayson County Medical Society herewith wishes to put itself on record as being willing to approve of and assist any recognized community organization which might wish to sponsor a nonprofit public inoculation clinic in this county.—*Resolution, Grayson County Medical Society.*

More complete information about any of the county programs mentioned in the accompanying story may be had upon request to the Texas Medical Association.

second injections free. The local regional office of civil defense was invited to join the program, and the first day of mass immunization was in the category of a mock "disaster" in order to test communication and transportation efficiency. Known paying patients will be charged $4 for the third shot, but no effort will be made to determine whether or not a patient can pay before administering the vaccine. This fact is being widely publicized.

For Indigents Only

Hico doctors, who already have inoculated school children free of charge, have carried out a vigorous campaign to get all citizens under the age of 45 inoculated by private physicians at a reasonable fee, but these injections are free to those who cannot pay. The Hico City Hospital and the doctors have borne the cost of the vaccine except for the initial school children's program. The secretary of the *Hamilton County Society* reports that his group believes free injections or token payments will not solve any problems, but will only put the medical profession under more pressure to give more free service.

Free inoculation for indigents and immunization of all other persons by their own physicians at a reasonable cost has been advocated by *Brazos-Robertson, Anderson-Houston-Leon,* and *Wilbarger Counties Societies.*

Other Programs

To make the vaccine more readily available, *Harris County* doctors have voted to alter their fees and office hours within reasonable limits because of the urgency of the poliomyelitis problem. Patients under financial burdens may receive injections at the city and county health department centers. The society approved a plan to the effect that personnel in organizations which maintain established clinics or infirmaries under medical supervision could receive vaccine at these clinics.

El Paso County doctors have promoted a public education program and have announced that vaccine is available at a nominal fee for all patients under the age of 40. Patients less than 20 are urged to get their inoculations at clinics of the city-county health unit. *Hill County Society* is on record as approving of the Salk vaccine, and urging that every person be inoculated by his own physician. Indigent patients will receive free injections from doctors.

The *Lamar County Medical Society* voted to have doctors pass on the eligibility of each child to receive free vaccine at the county health unit.

Bowie County Society has offered to cooperate in any project to promote the eradication of poliomyelitis and to give indigents vaccine in private offices at any time. The society publicized the fact that it would not condemn group inoculations by medical personnel under proper supervision when initiated by lay organizations.

Lamb-Bailey-Hockley-Cochran and *Hill Counties Societies* have advised that all persons of all ages should receive injections but have not sponsored any mass plan of inoculation.

Baylor and *Knox Counties* doctors will give injections to all those in the eligible age population during a mass inoculation program. In *Baylor County,* the school will serve as an immunization center for three nights. In *Knox County,* shots will be given at the county hospital.

WOMAN'S AUXILIARY

WOMAN'S AUXILIARY TO THE TEXAS MEDICAL ASSOCIATION

Thirty-Ninth Annual Convention

April 27-May 1, 1957—Dallas

PROGRAM

CONVENTION CHAIRMEN
(All of Dallas)

Chairman.—Mrs. Oscar M. Marchman, Jr.
Co-Chairman.—Mrs. Ridings E. Lee.
Business Meetings.—Mrs. T. McDowell Anderson.
Council Women's Breakfast.—Mrs. Ramsay H. Moore.
County Presidents' Luncheon.—Mrs. William B. Dean.
Courtesy and Executive Board Luncheon.—Mrs. Cecil Patterson.
Decorations.—Mrs. Julius McIver.
Displays.—Mrs. Tom M. McCrory.
Favors and Door Prizes.—Mrs. Joseph L. Knapp.
Finance.—Mrs. Earl Loftis.
Hospitality Room.—Mrs. Maxwell Thomas and Mrs. F. E. Gessner.
Information.—Mrs. Warren A. Shoecraft.
Memorial Services.—Mrs. S. F. Harrington.
Past Presidents' Dinner.—Mrs. S. M. Hill.
Post-Convention Executive Board Breakfast.—Mrs. Everett Fox.
Publicity.—Mrs. M. R. Harrington.
Registration.—Mrs. J. S. Minnett.
Social Meetings.—Mrs. Charles Bussey.
Style Show Luncheon.—Mrs. Robert Sparkman.
Tickets.—Mrs. Dale Austin.
Ushers.—Mrs. T. H. Obenchain.

Saturday, April 27

12:00 noon-4:00 p. m. Registration, Tickets, and Information, Mezzanine, Statler Hilton Hotel.

12:00 noon-4:00 p. m. Hospitality Room open, Rooms 422-426-430, Statler Hilton Hotel.

Sunday, April 28

8:00 a. m.-4:00 p. m. Registration, Tickets, and Information, Mezzanine, Statler Hilton Hotel.

8:00 a. m.-4:00 p. m. Hospitality Room open, Rooms 422-426-430, Statler Hilton Hotel.

8:30 a. m. "Cotton Bowl" Breakfast for Council Women, Silver Room, Statler Hilton Hotel. Mrs. Harold Lindley, Pecos, First Vice-President and Organization Chairman, presiding.

12:30 p. m. "S.M.U." Luncheon and Meeting for State Executive Board, Embassy Ballroom, Statler Hilton Hotel. Mrs. Richard C. Bellamy, Liberty, President, presiding.

Invocation.—Mrs. Robert F. Thompson, El Paso.
Address of Welcome.—Mrs. Ridings E. Lee, Dallas.
Response.—Mrs. E. W. Coyle, San Antonio.
Presentation of Past Presidents.—Mrs. E. H. Cary, Dallas.
Greetings from President of the Woman's Auxiliary to Southern Medical Association.—Mrs. O. W. Robinson, Paris.
Reports from Officers, Committee Chairmen, and Council Women.

2:00 p. m. Tour of Health Fair and Planetarium, Fair Park. (Chartered buses will provide transportation from the Statler Hilton Hotel to Fair Park.)

4:30 p. m.-5:00 p. m. Memorial Services of Texas Medical Association and Woman's Auxiliary, Junior Ballroom, Statler Hilton Hotel. Dr. George W. Waldron, Houston, Chairman, Committee on Memorial Services, presiding.

Organ Prelude.—Mrs. Doris Watson, Dallas.
Invocation.—The Rev. William A. Holmes, Associate Pastor, Highland Park Methodist Church, Dallas.
Violin Solo.—Mrs. Nellene Coffee, Dallas.
Memorial Address for Deceased Physicians.—Dr. George W. Waldron, Houston.
Memorial Address for Deceased Members of the Woman's Auxiliary.—Mrs. John H. Wootters, Houston.
Vocal Duet.—Mrs. Virginia Seeling and Mrs. Dodie Griffith, Dallas.
Benediction.—Mr. Holmes.

7:00 p. m. "High Finance" Dinner for Past Presidents, Gold Room, Statler Hilton Hotel.

Monday, April 29

8:00 a. m.-4:00 p. m. Registration, Tickets, and Information, Mezzanine, Statler Hilton Hotel.

8:00 a. m.-4:00 p. m. Hospitality Room open, Rooms 422-426-430, Statler Hilton Hotel.

10:00 a. m.-12:00 noon. Opening General Meeting of Texas Medical Association, Regency Room, Hotel Adolphus. Dr. Milford O. Rouse, Dallas, President, presiding.

Invocation.—The Rev. John Lee Harris, Pastor, Lakeside Baptist Church, Dallas.
Remarks of President of Texas Medical Association.—Dr. Milford O. Rouse, Dallas.
Introductions.
Mrs. Oscar M. Marchman, Jr., Dallas, President, Woman's Auxiliary to the Dallas County Medical Society.
Dr. Glenn D. Carlson, Dallas, President, Dallas County Medical Society.
Dr. Ridings E. Lee, Dallas, Chairman, Committee on General Arrangements for Annual Session.
Representatives of Related Specialty Organizations.
Mrs. H. S. Renshaw, Fort Worth, President-Elect, Woman's Auxiliary to the Texas Medical Association.
Dr. Denton Kerr, Houston, President-Elect, Texas Medical Association.
Greetings from President of Woman's Auxiliary to the American Medical Association.—Mrs. Robert Flanders, Manchester, N. H.
Greetings from President of Woman's Auxiliary to the Southern Medical Association.—Mrs. O. W. Robinson, Paris.
Report of President of Woman's Auxiliary to the Texas Medical Association.—Mrs. Richard C. Bellamy, Liberty.
Address of Member of Board of Trustees of the American Medical Association.—Dr. F. J. L. Blasingame, Wharton.
Recent Trends in Surgery of the Gallbladder and Common Duct.—Dr. Warren H. Cole, Chicago, Ill.

12:00 noon. "Medical School" Luncheon honoring County Presidents, Junior Ballroom, Statler Hilton Hotel.

Invocation.—Mrs. William Hibbitts, Texarkana.
Welcome.—Mrs. O. M. Marchman, Jr., Dallas, Chairman of Convention and President, Woman's Auxiliary to the Dallas County Medical Society.
Response.—Mrs. J. Griffin Heard, Houston, President, Woman's Auxiliary to the Harris County Medical Society.
Greetings from American Medical Association.—Dr. F. J. L. Blasingame, Wharton.
Greetings from Texas Medical Association.—Dr. Milford O. Rouse, Dallas, President.
Presentation of Door Prizes.

1:30 p. m. First Business Session of Woman's Auxiliary to Texas Medical Association, Junior Ballroom, Statler Hilton Hotel. Mrs. Richard C. Bellamy, Liberty, President, presiding.

Reports of County Presidents.
Presentation of County Auxiliary Awards.—Mrs. Charles B. Dildy, Austin.
Presentation of Door Prizes.

Tuesday, April 30

8:00 a. m.-4:00 p. m. Registration, Tickets, and Information, Mezzanine, Statler Hilton Hotel.

8:00 a. m.-4:00 p. m. Hospitality Room open, Rooms 422-426-430, Statler Hilton Hotel.

8:30 a. m. Second Business Session of Woman's Auxiliary to Texas Medical Association, Embassy East, Statler Hilton Hotel. Mrs. Richard C. Bellamy, Liberty, President, presiding.

Invocation.—Mrs. F. F. Kirby, Waco.
Reports of Council Women, Committee Chairmen, and Officers.
Recommendations from Executive Board.
Presentation of Door Prizes.

12:00 noon. "Fashion" Luncheon and Style Show by Neiman-Marcus, Grand Ballroom, Statler Hilton Hotel.

Invocation.—Mrs. G. V. Brindley, Temple.
Introduction of President of Woman's Auxiliary to American Medical Association.—Mrs. George Turner, El Paso.
Greetings from Woman's Auxiliary to American Medical Association.—Mrs. Robert Flanders, Manchester, N. H., President.
Courtesy Resolutions.—Mrs. Carlos Hamilton, Houston.
Other Business.
Election of Officers.

Installation of Officers.—Mrs. A. B. Pumphrey, Fort Worth.

Presentation of Gavel and President's Pin.—Mrs. Richard C. Bellamy, Liberty.

Acceptance of Gavel and President's Pin.—Mrs. H. S. Renshaw, Fort Worth.

Presentation of Past President's Pin.—Mrs. P. R. Denman, Houston.

Presentation of Door Prizes.

Adjournment of 1956-1957 Session.

8:00 p. m. President's Dinner Party with Texas Medical Association, Grand Ballroom, Statler Hilton Hotel. Honoring Dr. Milford O. Rouse, Dallas, President. A seated dinner will be held at 8 p. m. Entertainment and dancing will follow from 9:30 p. m. to 1 a. m. Tickets at $8.50 each will be on sale until 12 noon the day of the party; no refunds will be made after that hour. Dress will be optional.

9:30 p. m.-1:00 a. m. Dancing and Entertainment.

Wednesday, May 1

8:00 a. m.-12:00 noon. Hospitality Room open, Rooms 422-426-430, Statler Hilton Hotel.

8:30 a. m. "Garden Center" Breakfast and Meeting of Post-Convention Executive Board, Embassy Ballroom, Statler Hilton Hotel. Mrs. H. S. Renshaw, Fort Worth, President, presiding.

12:30 p. m. General Meeting Luncheon with Texas Medical Association, Terrace, Baker Hotel. Tickets at $2.50 each will be on sale until 10 a. m. the day of the luncheon; there will be no refunds after that hour.

OFFICERS AND COMMITTEES

Officers

Honorary Life Presidents.—Mrs. S. A. Collom, Texarkana; Mrs. Frank N. Haggard, San Antonio; Mrs. M. L. Graves, Houston; Mrs. Sam E. Thompson, Kerrville; Mrs. George Turner, El Paso.

Honorary Life Member.—Mrs. H. Leslie Moore, Dallas.

Past Presidents.—Mrs. E. H. Cary, Dallas; *Mrs. S. C. Red, Houston; Mrs. M. L. Graves, Houston; *Mrs. W. A. Wood, Waco; *Mrs. J. O. McReynolds, Dallas; Mrs. S. A. Collom, Texarkana; Mrs. E. V. DePew, San Antonio; *Mrs. H. B. Trigg, Fort Worth; Mrs. Joe Gilbert, Austin; Mrs. H. C. Haden, Houston; Mrs. O. M. Marchman, Dallas; Mrs. H. R. Dudgeon, Waco; Mrs. G. V. Brindley, Temple; Mrs. Frank N. Haggard, San Antonio; *Mrs. Preston Hunt, Texarkana; *Mrs. S. D. Whitten, Greenville; *Mrs. John T. Moore, Houston; *Mrs. R. B. Homan, El Paso; Mrs. W. R. Thompson, Fort Worth; Mrs. F. F. Kirby, Waco; *Mrs. S. H. Watson, Waxahachie; Mrs. Scott C. Applewhite, San Antonio; Mrs. William Hibbitts, Texarkana; Mrs. S. F. Harrington, Dallas; Mrs. P. R. Denman, Houston; Mrs. A. B. Pumphrey, Fort Worth; Mrs. Sam E. Thompson, Kerrville; *Mrs. Charles B. Alexander, San Antonio; Mrs. George Turner, El Paso; Mrs. Edward C. Ferguson, Beaumont; Mrs. Samuel M. Hill, Dallas; Mrs. Joseph B. Foster, Houston; Mrs. William M. Gambrell, Austin; Mrs. Oscar W. Robinson, Paris; Mrs. Robert F. Thompson, El Paso; Mrs. E. W. Coyle, San Antonio; Mrs. Mark H. Latimer, Houston; Mrs. Joseph H. McCracken, Jr., Dallas.

*Deceased.

President.—Mrs. Richard C. Bellamy, Liberty.

President-Elect.—Mrs. H. S. Renshaw, Fort Worth.

First Vice-President.—Mrs. Harold Lindley, Pecos.

Second Vice-President.—Mrs. Ramsay H. Moore, Dallas.

Third Vice-President.—Mrs. William D. Nicholson, Freeport.

Fourth Vice-President.—Mrs. Lynn Hilbun, Henderson.

Fifth Vice-President.—Mrs. R. B. G. Cowper, Big Spring.

Treasurer.—Mrs. William C. Barksdale, Borger.

Recording Secretary.—Mrs. J. L. Jinkins, Galveston.

Corresponding Secretary.—Mrs. E. R. Richter, Dayton.

Publicity Secretary.—Mrs. Joe Thorne Gilbert, Austin.

Parliamentarian.—Mrs. John C. Parsons, San Antonio.

Executive Secretary.—Miss Hazel Casler, Austin.

Standing Committees

Advisory.—Mrs. Mark H. Latimer, Houston, Chairman; All Past Presidents, Members.

Civil Defense.—Mrs. Ralph E. Gray, Lake Jackson, Chairman; Mrs. Emmett J. Essin, Sherman, Co-Chairman.

Courtesy Resolutions.—Mrs. Carlos R. Hamilton, Houston, Chairman; Mrs. Paul Brindley, Galveston, Co-Chairman; Mrs. John L. Wright, Big Lake.

Finance.—Mrs. Edward W. Coyle, San Antonio, Chairman; Mrs. Jacob F. Schultz, Houston, Co-Chairman; Mrs. Joseph H. McCracken, Jr., Dallas; Mrs. William C. Barksdale, Borger; Mrs. J. C. Terrell, Stephenville.

Historical.—Mrs. Charles B. Dildy, Austin, Chairman; Mrs. James Coleman, Austin, Co-Chairman; Mrs. D. O. D. Ware, Fort Worth; Mrs. Albert G. Barsh, Lubbock; Mrs. Frank T. Smith, Sealy.

Legislation.—Mrs. William M. Palm, Houston, Chairman; Mrs. G. G. Zedler, Austin, Co-Chairman; Mrs. E. T. Driscoll, Midland; Mrs. Melvin Marx, Jr., Clarksville; Mrs. Paul H. Mitchell, Corsicana.

Memorial Service.—Mrs. John H. Wootters, Houston, Chairman; Mrs. S. F. Harrington, Dallas, Co-Chairman.

Mental Health.—Mrs. L. Bonham Jones, San Antonio, Chairman; Mrs. Frank M. Posey, Jr., San Antonio, Co-Chairman; Mrs. James N. White, San Angelo; Mrs. W. L. Parker, Wichita Falls; Mrs. Jack H. Wade, Lufkin.

Nominating.—Mrs. Joseph H. McCracken, Jr., Dallas, Chairman; Mrs. A. B. Pumphrey, Fort Worth; Mrs. Russell L. Deter, El Paso; Mrs. J. Griffin Heard, Houston; Mrs. Sidney W. Bohls, Austin; Mrs. Allan C. Shields, Victoria; Mrs. G. G. Passmore, San Antonio.

Nurse Recruitment.—Mrs. Edward P. Waller, San Antonio, Chairman; Mrs. Norman H. Jacob, San Antonio, Co-Chairman; Mrs. H. E. McKay, Jr., Humble; Mrs. C. Ray Cockrell, Snyder; Mrs. Neil Buie, Jr., Marlin.

Organization and Membership.—Mrs. Harold Lindley, Pecos, First Vice-President; Vice-Presidents and Council Women.

Philanthropic Funds:

American Medical Education Foundation.—Mrs. L. L. D. Tuttle, Houston, Chairman; Mrs. E. H. Marek, Yoakum, Co-Chairman; Mrs. R. H. Harrison, Jr., Bryan; Mrs. John H. Cunningham, Dalhart; Mrs. C. B. Young, Tyler.

Library Fund.—Mrs. Sidney W. Bohls, Austin, Chairman; Mrs. Sam E. Thompson, Kerrville, Co-Chairman; Mrs. V. R. Hurst, Longview; Mrs. S. F. Harrington, Dallas; Mrs. Roy E. Moon, San Angelo.

Memorial Fund.—Mrs. L. S. Thompson, Dallas, Chairman; Mrs. O. M. Marchman, Sr., Dallas, Co-Chairman; Mrs. T. Guy Jones, Dallas.

Student Loan Fund.—Mrs. J. Charles Dickson, Houston, Chairman; Mrs. M. L. Graves, Chairman Emeritus, Houston; Mrs. Thomas J. Vanzant, Houston; Mrs. Robert Sparkman, Dallas; Mrs. Edgar F. Jones, Jr., Galveston.

Program.—Mrs. Howard Dudgeon, Jr., Waco, Chairman; Mrs. Charles Shellenberger, Waco, Co-Chairman.

Publications:

Bulletin.—Mrs. B. C. Wallace, Jr., Waxahachie, Chairman; Mrs. T. H. Thomason, Fort Worth, Co-Chairman; Mrs. Troy Shafer, Harlingen; Mrs. George Hoffman, Fort Stockton; Mrs. Edward T. Smith, Houston.

News Letter.—Mrs. F. Paul Burow, Killeen, Editor.

Today's Health.—Mrs. Charles L. Gary, Jr., Corsicana, Chairman; Mrs. Thomas E. Hunt, Jr., Paris, Co-Chairman; Mrs. J. D. Casey, San Benito; Mrs. P. A. Reitz, Pittsburg; Mrs. C. G. Brindley, Borger.

Public Relations.—Mrs. Allan C. Shields, Victoria, Chairman; Mrs. G. W. Cleveland, Austin, Co-Chairman; Mrs. Horace A. Baker, Wills Point; Mrs. Oscar N. Mayo, Brownwood; Mrs. Carl Henson, Navasota.

Reference.—Mrs. George Turner, El Paso, Chairman; Mrs. Edward W. Coyle, San Antonio; Mrs. Joseph H. McCracken, Jr., Dallas.

Research and Romance of Medicine.—Mrs. Guy E. Knolle, Houston, Chairman; Mrs. F. J. L. Blasingame, Wharton; Mrs. C. Skiles Thomas, Tahoka.

Revisions.—Mrs. Fred W. Sutton, Beaumont, Chairman; Mrs. August J. Streit, Amarillo; Mrs. Frank Steed, San Antonio.

School of Instruction.—Mrs. R. T. Travis, Jacksonville, Chairman.

Special Appointments:

Doctor's Day.—Mrs. R. T. Travis, Jacksonville.

Health Fair.—Mrs. Jackson H. Speegle, Dallas, Chairman; Mrs. T. S. Barnes, Dallas, Co-Chairman; Mrs. Milford O. Rouse, Dallas; Mrs. Albert H. Keene, Richardson.

Safety and Rehabilitation.—Mrs. Walter B. West, Fort Worth, Chairman; Mrs. Charles E. Oswalt, Jr., Fort Stockton; Mrs. J. M. Hooks, Jr., Abilene; Mrs. William E. Sharp, Baytown.

Science Fair.—Mrs. Hal Norgaard, Denton, Chairman; Mrs. Warren Shoecraft, Dallas, Co-Chairman; Mrs. Elmer Heimbigner, Lake Jackson; Mrs. J. E. Ross, Henderson; Mrs. Ben T. Blackwell, Amarillo.

COUNCIL WOMEN

District 1.—Mrs. Joseph V. Gibson, Kermit.
District 2.—Mrs. James W. Rainer, Odessa.
District 3.—Mrs. J. D. Donaldson, Jr., Lubbock.
District 4.—Mrs. J. N. White, San Angelo.
District 5.—Mrs. Joshua Seidel, Kerrville.
District 6.—Mrs. Richard L. Hudson, Corpus Christi.
District 7.—Mrs. Joe A. Shepperd, Burnet.
District 8.—Mrs. Andrew Magliolo, Dickinson.
District 9.—Mrs. J. T. Dabney, Livingston.
District 10.—Mrs. L. C. Heare, Port Arthur.
District 11.—Mrs. Harold B. Cameron, Tyler.
District 12.—Mrs. Van Goodall, Clifton.
District 13.—Mrs. Travis Smith, Abilene.
District 14.—Mrs. Thomas V. Patterson, Denton.
District 15.—Mrs. H. O. Padgett, Marshall.

COUNTY PRESIDENTS

District 1:

El Paso.—Mrs. John D. Martin, El Paso.
Pecos-Jeff Davis-Presidio-Brewster.—Mrs. D. J. Sibley, Fort Stockton.
Reeves-Ward-Winkler-Loving-Culberson-Hudspeth.—Mrs. Jim Camp, Pecos.

District 2:

Andrews-Ector-Midland.—Mrs. Edward T. Driscoll, Midland.
Borden-Scurry-Kent-Dickens-Garza-King-Stonewall.—Mrs. Harry Ward, Snyder.
Dawson-Lynn-Terry-Gaines-Yoakum.—Mrs. Noble L. Rumbo, O'Donnell.
Howard-Martin-Glasscock.—Mrs. Floyd Mays, Big Spring.
Nolan-Fisher-Mitchell.—Mrs. Francis Hood, Sweetwater.

District 3:

Armstrong-Donley-Childress-Collingsworth-Hall.—Mrs. Carter Holcomb, Wellington.
Dallam-Hartley-Sherman-Moore.—Mrs. Robert Askins, Jr., Dumas.
Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson.—Mrs. J. Foster Elder, Pampa.
Hale-Floyd-Briscoe.—Mrs. Jeff Davis, Plainview.
Hardeman-Cottle-Foard-Motley.—Mrs. J. S. Stanley, Matador.
Lamb-Bailey-Hockley-Cochran.—Mrs. Dale P. Campbell, Levelland.
Lubbock-Crosby.—Mrs. Ben Hutchinson, Lubbock.
Potter.—Mrs. Ralph B. Payne, Amarillo.
Randall-Deaf Smith-Parmer-Castro-Oldham-Swisher.—Mrs. J. W. Spence, Jr., Dimmitt.

District 4:

Brown-Comanche-Mills-San Saba.—Mrs. Homer B. Allen, Brownwood.
Coleman.—Mrs. Charles O. Moody, Coleman.
Crane-Upton-Reagan.—Mrs. B. J. Maynard, Crane.
Kimble-Mason-Menard.—Mrs. Glenn H. Ricks, Brady.
Runnels.—Mrs. Henry McCreight, Winters.
Tom Green-Coke-Crockett-Concho-Irion-Sterling-Sutton-Schleicher.—Mrs. T. Gabe Coleman, San Angelo.

District 5:

Atascosa.—Mrs. U. B. Ogden, Pleasanton.
Bexar.—Mrs. Jack M. Partain, San Antonio.
Comal.—
Gonzales.—Mrs. James C. Price, Gonzales.
Guadalupe.—Mrs. Andrew Raetzsch, Seguin.
Karnes-Wilson.—
Kerr-Kendall-Gillespie-Bandera.—Mrs. C. C. Jones, Jr., Kerrville.
LaSalle-Frio-Dimmit.—Mrs. Clyde P. Myers, Cotulla.
Medina-Uvalde-Maverick-Val Verde-Edwards-Real-Kinney-Terrell-Zavala.—Mrs. George M. Allison, Uvalde.

District 6:

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Brooks-Duval-Jim Wells.—Mrs. Glenn T. Howard, Alice.
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Nueces.—Mrs. June Yates, Corpus Christi.
San Patricio-Aransas-Refugio.—Mrs. H. A. Miller, Refugio.
Webb-Zapata-Jim Hogg.—Mrs. Martin J. Fuller, Laredo.

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Caldwell.—Mrs. Philip A. Wales, Lockhart.
Hays-Blanco.—Mrs. Maurice D. Heatley, San Marcos.
Lampasas-Burnet-Llano.—Mrs. Joe A. Shepperd, Burnet.
Travis.—Mrs. T. J. Archer, Jr., Austin.
Williamson.—Mrs. Marvin J. Leshikar, Taylor.

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Hunt-Rockwall-Rains-Delta. — Mrs. John W. Morris, Greenville.
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Lamar.—Mrs. Courtney M. Townsend, Paris.
Van Zandt.—Mrs. Horace A. Baker, Wills Point.

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Cass-Marion.—Mrs. H. L. D. Jenkins, Hughes Springs.
Gregg.—Mrs. O. W. Elkins, Longview.
Harrison.—Mrs. Norman F. Holcomb, Marshall.
Red River.—Mrs. R. W. Payne, Clarksville.
Upshur.—Mrs. J. Gib Daniels, Gilmer.

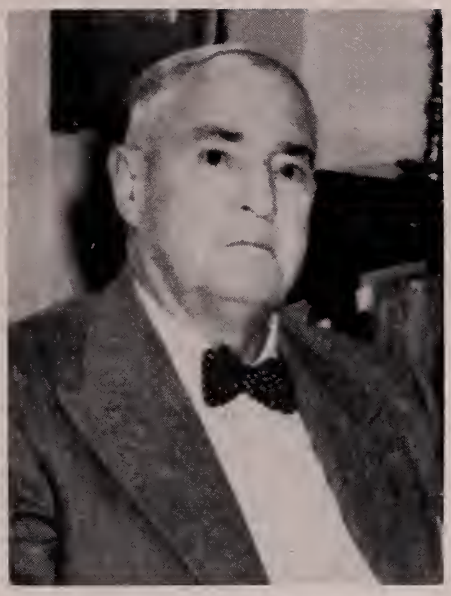
DR. ROBERT H. McLEOD

Dr. Robert H. McLeod, an honorary member and past Vice-President of the Texas Medical Association, died November 1, 1956, in Palestine, Texas.

Born in Latexo, Houston County, January 28, 1874, he was orphaned when he was about 12 years old and lived briefly with his grandfather in Cotulla and then with an uncle in Palestine. He went to work in the International-Great Northern Railroad shops in Palestine before his fifteenth birthday, and became a close friend of Eugene C. Barker, who later became one of the most outstanding history professors of the University of Texas. The two boys encouraged each other's ambitions, and studied together to pass university entrance examinations. Dr. McLeod entered the University of Texas Medical Branch, Galveston, in 1895, and was graduated three years later. Immediately after his graduation, he became house surgeon for the railroad hospital in Palestine, and after two years in that position, he set up his private general practice. During his latter years, he limited his practice almost entirely to those who were unable to pay for medical care.

Dr. McLeod had been a member of the Texas and American Medical Associations through the Anderson-Houston-Leon Counties Medical Society continuously throughout his career. He was Councilor for the Eleventh District from 1923 until 1930, Vice-President of the state Association in 1933-1934, and elected to honorary membership in 1953. He served on the State Board of Medical Examiners under Governor T. M. Campbell.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.



DR. ROBERT H. McLEOD

He served as a captain in charge of a Sixth Division field hospital in France during World War I, and later was promoted to major and took command of all the division's field hospitals.

During his career, he found time to serve eight years as mayor of Palestine; he also was a member of the Anderson County Chamber of Commerce and the Presbyterian Church.

Miss Flora Bartholomew and Dr. McLeod were married in Palestine November 29, 1905. Mrs. McLeod and a daughter, Mrs. Gordon Brelsford, Tyler, survive.

DR. ROY O. SAMPLE

Dr. Roy Osborne Sample, San Antonio, Texas, died of heart failure in a San Antonio hospital December 2, 1956.

A native of Madison County, Mo., Dr. Sample was born December 26, 1889, the son of E. A. and Ada (Smith) Sample. He attended high school in Fredericktown, Mo., and was graduated from college in 1908. His medical education was received at Vanderbilt University, Nashville, where he was graduated in 1913. Dr. Sample continued his medical training in New York, where he held several appointments in the hospitals before going to Clayton, Mo., in 1916 to begin practice. The next year he was called into military service, being discharged from the Army as a captain in 1919. He returned to Clayton, remaining there until 1923, when he moved to San Antonio, his place of practice the remainder of his life.

Dr. Sample belonged to the Bexar County Medical Society, Texas Medical Association, American Medical Association, International Medical Assembly of Southwest Texas, American Academy of General Practice, and Association of Military Surgeons of the United States. He was a member of the Baptist Memorial Hospital staff and a member of the Santa Rosa Hospital associate staff.

Surviving Dr. Sample is his wife, the former Miss Julia Beckmann, whom he married July 21, 1922, in St. Louis; a daughter, Miss Julia Carolyn Sample, San Antonio; his mother, Mrs. E. A. Sample, Fredericktown, Mo.; three brothers; and one sister.

DR. T. H. STEVENS

Dr. Thomas Hood Stevens, Sulphur Springs, Texas, died in a local hospital November 26, 1956, of coronary occlusion.

Born in Raleigh, N. C., August 25, 1911, he was the son of Dr. and Mrs. Ralph S. Stevens. After attending Raleigh and Princeton high schools, he entered Duke University, Durham, N. C., and was graduated from Louisiana State University Medical School, New Orleans, in 1937. He was president of, and was among the top 10 students in, his graduating class. He also was a member of the Student Council, the Undergraduate Surgical Society, and representative at large on the Interfraternity Council. He interned at Charity Hospital, New Orleans, and began his medical practice in Hallsville, Texas, in 1938. The following year, he moved to Sulphur Springs where he remained until his death.

Dr. Stevens was a past president and secretary of the Hopkins-Franklin Counties Medical Society and was a member of the Texas and American Medical Associations and Phi Chi medical fraternity. He had served both as city and county health officer for a number of years, was the Selective Service medical examiner for his area, and was surgeon and medical examiner for the Louisiana and Arkansas Railroad. He also was a member of the Lions Club, Chamber of Commerce, Veterans of Foreign Wars, Woodmen of the World, the school board of trustees, and the board of stewards of the First Methodist Church. He was a thirty-second degree Mason and a member of the Shrine.

Dr. Stevens enlisted in the Reserve Army Corps in 1937 and was called to active duty in 1941. He served during World War II as a major in the Army Medical Corps, and was a member of the Five Hundred and Third Parachute Battalion, serving as chief regimental surgeon in its portable division hospital. He received the unit citation, bronze star, and purple heart for his action in the Corregidor jump, and participated in five major battles and three campaigns.

On October 9, 1936, Miss Mavis Lunsford and Dr. Stevens were married. Mrs. Stevens survives, as do four children, Mary Ann, Thomas Hood, Jr., Ralph III, and Ray Louis, all of Sulphur Springs; his mother, Mrs. Eula Hood Stevens, Smithfield, N. C.; three sisters, Mrs. Garlon Montague, Raleigh, N. C.; Mrs. Jimmy Sawrey, Denver; and Mrs. Theron L. Moore, Houston. Three brothers preceded him in death.

DR. T. H. STEVENS

DR. RICHARD KEYS

Dr. Richard Keys, Amarillo, Texas, died of heart failure December 16, 1956, in a local hospital after a brief illness.

He was born March 3, 1882, in Murray, Ky.; his parents were John and Ellen (Peter) Keys. After finishing his preliminary education in the Murray public schools, Dr. Keys entered Vanderbilt University School of Medicine, Nashville, Tenn., and was graduated in 1910. He was an honor student, and was president of his junior class. He interned there at the City Hospital. In 1912, Dr. Keys began practicing in Scottsville, Ky.; he also practiced six years in Murray before moving in 1920 to Amarillo, where he remained active until the time of his death.

DR. RICHARD KEYS

Dr. Keys was a member of the Texas and American Medical Associations through the Potter County Medical Society, which he had served as secretary for five years and president one year. He also was a member of the Third District Medical Society, and was its president for nine years. He was a past head of the St. Anthony's Hospital staff and past secretary of the Northwest Texas Hospital staff, and a member of its board of managers. Dr. Keys' civic activities included membership in the Amarillo Country Club, Palo Duro Club, Rotary International, Knife and Fork Club, and First Christian Church.

In 1916, Miss Ruby Dell Riherd and Dr. Keys were married in Scottsville. Mrs. Keys survives, as do his mother, Mrs. Ellen Peter Keys, and three sisters, Misses Ileen, Erie, and Alice Keys, all of Murray, Ky.

DR. D. W. BLACK

Dr. Dennis Walls Black, Lampasas, Texas, died December 11, 1956, of cancer.

He was born September 13, 1872, in Bethpage, Tenn., and was the son of Alfred M. and Eliza Black. He studied in public schools in Bethpage and Gallatin, Tenn., before entering Vanderbilt University School of Medicine, Nashville, from which he was graduated in 1894. He took postgraduate work later at New York Polyclinic. In 1894, Dr. Black set up medical practice in Whitson, but moved the following year to McGregor. He then practiced briefly in Rosebud before moving in 1910 to Lampasas, where he remained until his retirement in 1949.

He was a member of the Lampasas-Burnet-Llano Counties Medical Society, Texas Medical Association, and American Medical Association. He was elected to honorary membership in the state group in 1951, and was a past president of his county society. Dr. Black was a Mason, had served on the Lampasas school board, and was a steward in the Methodist Church.

Miss Bertha A. Durham and Dr. Black were married in Bethpage, Tenn., December 12, 1894. Mrs. Black died in 1947. A son, D. W. Black, Jr., Lampasas, survives.

DR. F. J. KROULIK

Dr. Frank Jerry Kroulik, Smithville, Texas, died January 10, 1957, after a long illness.

Dr. Kroulik was the son of John and Fannie (Peschr) Kroulik, and was born January 13, 1877, near Industry in Austin County. He received his preliminary education at Bellville High School, then completed a business course at the Metropolitan Business College, Dallas. After working for a time as a clerk at New Ulm, Brenham, and San Felipe, he entered the University of Louisville, Ky., where he completed his freshman studies in 1899. He then earned his doctor of medicine degree at Tulane University School of Medicine in 1903, and went to Smithville to practice. He remained there three years, then practiced briefly in Cistern, but returned to Smithville to continue his practice for 49 years.

Dr. Kroulik was a member of the Texas and American Medical Associations through the Bastrop County Medical Society, which he had served as president in 1938 and as secretary in 1933 and 1934. He was elected to honorary membership in the State Association in 1950. He also was a Master Mason and a member of the Scottish Rite Shrine, Sons of Hermann, Slavonic Benevolent Union of the State of Texas, and the Presbyterian Church. He was listed in "Who's Who in Texas" and in "A History of Texas and Texans."

He was married on June 8, 1910, to Miss Matilda Rosanky. She survives as do a son, Frank C. Kroulik, Bellaire; two brothers, Joe Kroulik, Bellville, and Rudolph Kroulik, Shiner; and two granddaughters, both of Bellaire.

DR. F. J. KROULIK

TEXAS
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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

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House of Delegates Has Important Business

All members of the House of Delegates have received the Handbook for Delegates, which includes the annual reports of officers, boards, councils, and committees to be considered by the House. Action on these reports comprises the major portion of the business of the House, and the decisions reached on many matters may affect every member of the Texas Medical Association. For this reason sessions of the House are open to any member of the Association. Although such visitors may not participate in discussion or voting, they are urged to express to their county society delegates their views on any business coming before the House and to suggest other matters which should come to the attention of this policy-making assembly. Furthermore, any member may speak at hearings of reference committees on business to be voted on by the House.

Among the more important items to be presented to the House of Delegates at the 1957 annual session in Dallas later this month are the following:

Branch Societies.—The Board of Councilors is recommending that in some carefully selected instances, branch societies of component medical societies be allowed with the incorporation of several basic requirements. These are that a request come from the parent society by two-thirds majority vote, that a request come from 80 per cent of the members in the semi-isolated area desiring to become a branch society, that 25 or more members be required as the minimum to establish and maintain a branch society,

that only a member of the parent society may be a member of a branch society and disciplinary jurisdiction must remain in the parent society, that the request for establishing a branch society must be approved by a two-thirds vote of the Board of Councilors in regular session and such a request must be accompanied by the detailed plan of operation and necessary changes in the constitution and by-laws of the parent society, and that by two-thirds majority vote the parent society may abolish its branch society.

Abolishment of the Office of Vice-President.—The amendments proposed by the Council on Constitution and By-Laws to abolish the office of Vice-President are the result of careful consideration of the proposal made by Dr. F. J. L. Blasingame at the 1955 annual session that the Vice-President succeed to President-Elect, partly an effort to enhance the vice-presidency. Succession of Vice-President to President-Elect and ultimately President would mean three years of work requiring considerable time, money, and enthusiasm, which does not appear justifiable, the Council on Constitution and By-Laws believes. Various plans were considered at length by the Council before suggesting that if there is to be a change, the best solution would be to abolish the office entirely. Provision is made for a President pro tempore and the election of an interim President should the office become vacant. Constitutional changes are involved; therefore, final action cannot be taken until the 1958 session.

Restrictions on Intern, Resident, and Inactive Members.—Two Constitutional amendments introduced by the Harris County Medical Society at the 1956 annual session will be up for a vote at the coming meeting. They stipulate that intern and resident members and inactive members shall not have the right to vote, hold office, endorse applications for membership, or serve as a delegate or alternate delegate to the Texas Medical Association. A Constitutional amendment introduced by the Board of Councilors to restrict intern and resident members from the right to vote or hold office was passed at the last annual session.

Unit System Fee Schedule.—The Committee for Study of Health Costs is proposing that a fee schedule using the unit system be prepared to help major medical catastrophic health insurance work. Catastrophic health insurance was originated by Blue Shield in 1951, and in 1954 was extended to include cancer. The cancer coverage has been and is an experiment; it is being watched by other insurance companies all over the country. There is no question as to the need for this type coverage, but the payments of benefits are skyrocketing. The medical profession must make the coverage work, and to this end the Committee suggests that a unit fee schedule be prepared by the appropriate committee and distributed to each member of the Association as a possible guide in determining fees for service.

Code for Interprofessional Conduct.—The establishment of a code setting forth principles applying to interprofessional conduct and practices to serve as a guide to doctors and lawyers is being proposed by the Committee to Study Liaison with the State Bar of Texas. A copy of the Wisconsin code has been mailed to each member of the House of Delegates for perusal, it being implied that any code adopted in Texas would be basically similar to that.

Medicare.—The House of Delegates in special session on September 9 decided that the Texas Medical Association would participate in the military dependent medical care program. A progress report will be given at the annual session in Dallas, with further review then as indicated. Texas, like other states participating in the act, will be asked by the Office of Dependent Medical Care to extend its contract from July 1, 1957, until it has been renegotiated next year. (Five state contracts will be negotiated per month with Texas negotiations set for January.) All state medical societies are participating in the program, with two

exceptions, Rhode Island, where the Army is paying doctors directly, and Ohio, where the Army has contracted with an insurance company to handle the physicians' Medicare.

Numerous other matters contained in the many excellent reports printed in the Handbook will come to the attention of the delegates. For example, the Committee on Mental Health will report on Dr. Francis J. Gerty's review of the mental health picture in Texas; the Committee on Patient Care will give a progress report on the work of the Texas Commission on Patient Care; the Committee on National Emergency Medical Service will evaluate Operation Rebound; and the Committee on Maternal Mortality will give statistics on 1955 maternal deaths and the trend evident. These developments and many, many others reported in the Handbook and to be presented in supplementary reports will require attention.

Delegates are urged to review carefully the information contained in the Handbook and to discuss the various reports with their colleagues. All doctors should have an interest in the affairs of the Association; they are welcome to take advantage of this once-a-year opportunity to be present when policies are being made.

—HOBART O. DEATON, M. D., Fort Worth.

Top Scientific Program Available in Dallas

The most outstanding scientific program of the year in Texas is being offered this month, when the Texas Medical Association and 17 related specialty societies meet jointly in Dallas. The efforts of many physicians in arranging a strong educational meeting—including presentations by 24 noted out-of-state guest speakers acquired cooperatively, other renowned special speakers from in and out of Texas, and Texas physicians—are expected to prove well worth while as the annual session begins.

All scientific meetings in Dallas are open to members of the Texas Medical Association. Not only will the nine scientific section meetings, general meetings, refresher courses, motion pictures, and exhibits be of interest to the doctors in attendance, but equally important are the sessions of the related organizations. Beginning on Saturday and continuing through Tuesday, with the majority being scheduled for Sunday, related specialty society programs deserve attention.

Specialty societies, in addition to utilizing the majority of the guest speakers, include on their programs presentations by such medical experts from out of Texas as Dr. Buford H. Burch, chief of thoracic surgery, Patton State Hospital, Patton, Calif. (Texas Chapter, American College of Chest Physicians); Dr. Harris Isbell, director, Addiction Research Center, U. S. Public Health Service Hospital, Lexington, Ky. (Texas Neuropsychiatric Association); Dr. J. Roderick Kitchell, associate professor of cardiology, Jefferson Medical College of Philadelphia, Philadelphia, Pa. (Texas Heart Association); Dr. Philip M. Markle of the American Board of Aviation Medicine, Memphis, Tenn. (Texas Air-Medics Association); Dr. Herman J. Moersch, president, American College of Chest Physicians, Rochester, Minn. (Texas Chapter, American College of Chest Physicians); and Dr. Jackson A. Smith of the University of Nebraska, Omaha, Neb. (Texas Geriatrics Society).

Other groups than those 17 actually designated by the Council on Scientific Work as related organizations also are doing their share to make the annual session a success. The Texas Division of the American Cancer Society and the Texas Pediatrics Society are helping to bring several guest speakers to the convention; the Texas Chapter of the American Academy of Pediatrics is cooperating with the Section on Pediatrics in the presentation of a panel discussion on accidents and poisonings in childhood; the Texas Physical Medicine and Rehabilitation Society is holding an organizational meeting; and the Fourth District of Texas

Chapter of the American College of Surgeons is having a session.

The American Medical Association's Committee on Aging will have a regional conference immediately preceding the annual session, under the chairmanship of Dr. Henry B. Mulholland, Charlottesville, Va., who also is a guest speaker. His schedule, typical of other guests' assignments, is an example of the cooperative spirit of the program planners; and his assignments include a talk before the Texas Diabetes Association, a refresher course, an address at a joint luncheon of the Texas Geriatrics Society and the Section on Public Health, and participation in a panel discussion for the Section on Internal Medicine. Dr. Wingate M. Johnson, professor of internal medicine, Bowman Gray School of Medicine, Winston-Salem, N. C., and a member of the AMA's Committee on Aging, also is participating in the scientific program.

Every effort has been made by the Council on Scientific Work, section officers, officers of related organizations, and others to assure the highest quality scientific program possible for the doctors of Texas at their 1957 annual session; and plans will begin in Dallas for the 1958 program. It is hoped more and more Texas physicians will follow in the footsteps of those who make it a practice to attend their convention yearly.

Texas Insurance Ranks High

The disability insurance plan sponsored by the Texas Medical Association compares favorably with other such plans offered through state and large county medical societies throughout the country. A review of 35 group disability insurance programs has been completed by the Insurance Committee of the California Medical Association. (See page 294.)

It is evident at a glance that Texas doctors have as flexible and as comprehensive a program available to them as is offered by any other medical group studied. The Council on Medical Economics and the Board of Trustees are to be congratulated for their part in providing such insurance.

★ Current Editorial Comment

Medicine and the Ministry

There is increasing recognition these days that the properly trained minister belongs on the health team—an insight which primitive culture sensed in making the "Medicine Man" and the "Holy Man" one person. An authentic insight is involved in the fact that the words *health, hale, whole,* and *holy* all come from the same Anglo-Saxon root. In the long run, the minister and the doctor are talking about the same thing.

The modern discovery, now that the interim conflict between science and religion is over, is that, as one famous surgeon once put it, "the body and soul live so closely together they catch each other's diseases."

Health, then, is not only a matter of the body, it is also a matter of the spirit.

Any doctor knows that the medical skill which can restore a man to physical fitness is sometimes relatively futile and that the man's physical recovery may be short-lived, if the man himself continues to suffer from a sense of emptiness, from a lack of anything to live for, or from a terrible sense of guilt. When a man's reason for living is gone, when death seems to him more desirable than life, when he cannot any longer live in peace with his betrayals, his needs from a health standpoint cross over the line from what is purely medical to what may, in essence, be primarily religious.

Excerpts from an address presented at the inaugural banquet of Tarrant County Medical Society, Fort Worth, Texas, January 8, 1957, by Dr. Walker, for 14 years minister of the University Christian Church in Fort Worth and current president of the Seventieth Annual Texas Convention of Christian Churches.

This department of the Journal presents editorial comment on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and others closely associated with the medical profession of Texas. Contributions not to exceed 500 words are invited.

The whole man—body, mind, and spirit—is sick, and his illness should be dealt with in terms of his wholeness and not merely in terms of his physical symptoms. In such situations, the minister's presence on the health team may be decisive. Admittedly he is not the quarterback on that team, but now and again it is his responsibility to kick the extra point which may decide whether the game is won or lost.

What I mean to point out is this: Ministers trained in modern seminaries undergo specific preparation for their role in dealing with sick people, taking courses usually taught by medical and psychiatric personnel. Because a great deal of our time is taken up with counseling people in various stages of physical or mental health, we need to know enough to know when we should send these people to you physicians. Sometimes religious problems are accentuated by feelings of physical inadequacy, so that medical care may be helpful in straightening out a religious or emotional problem. Sometimes counseling reveals neurotic or even psychotic tendencies, which the minister must learn to suspect so that he will know when to turn to a psychiatrist for help. For all of this he is trained in the seminary by medical people.

But the minister's role is more affirmative than that. He often has a function to perform even in "routine" illness—which, however simple it may appear to you, does not always so appear to the patient. There are times when the patient will share his fears and anxieties with his minister when, for various reasons, he will not do so with his doctor. He may not want the doctor to know how frightened he is at the prospect of major surgery, because to admit his fear to the doctor might be interpreted as lack of confidence in him. And, indeed, his fears may root occasionally in that very lack of confidence. In such situations, the best friend the doctor has is the minister who enters the sick room and honestly reassures the patient that he is in the best possible hands, and then, in a moment of prayer, commits *his* illness and *your* skill and wisdom to the hands of God. You are a better doctor when your patient is not afraid.

There are other functions which the minister has to perform in relation to sick people. I am sure a busy doctor going from one heavy responsibility to another among his patients sometimes wishes he did not have the patient's family to deal with. For a family's apprehensions and impatience most certainly can affect the patient's progress. A minister's best contribution may be dealing with these folk.

Still another situation in which work of doctor and minister is related occurs when the doctor, having done all that he can, is obliged to report to the patient that he must live out the rest of his life with a certain degree of permanent incapacity. Here it falls largely to the minister to help the patient build a new and meaningful life under the conditions of his handicap. The doctor, to be sure, defines the limits within which the life is to be lived, but getting the patient to accept the situation with creative grace is something which falls largely within the realm of the patient's religion and philosophy of life—the very realm where the minister is most at home.

The one function of the minister with reference to the sick which has always been acknowledged is his role in dealing with a terminal illness. Then, not only the patient, if he is to know this verdict, but the patient's entire circle of loved ones become the special concern of the minister. If the patient is to die, it is the task of religion to aid him to die nobly and to aid the loved ones to accept his death without bitterness.

Unquestionably, the art of healing requires a broad spiritual approach, as well as a broad medical one. I am almost prepared to say that no one is properly equipped to deal with ill people whose reservoir of spiritual insight and whose capacities for human kindness and understanding are depleted.

—GRANVILLE T. WALKER, B.D., D.D., Ph.D.,
Fort Worth, Texas.

Dr. Walker, University Christian Church, Fort Worth.

President's Page

IT DEPENDS ON YOU!

The public's opinion of the medical profession is largely a composite of the public's opinion of individual doctors. Therefore it is up to me—and to you—to serve faithfully, capably, sympathetically, and reasonably every day, as a physician and as a citizen.

The medical profession and the public look to the pronouncements of Hippocrates as the origin of the ethics and principles of service to humanity, which place doctors high in the esteem of their fellowmen, but Hippocrates just restated the essentials of the Golden Rule as enunciated by the first Great Physician, Jesus of Nazareth.

It is entirely within the province of the Golden Rule for physicians to be good citizens—and as such to participate actively in their communities' churches, chambers of commerce, service clubs, boards of directors of business enterprises, and politics, if by politics we mean the exercising of the privilege of voting for proper officials.

Doctors are truly partners in health with many: fellow physicians; health departments; dentists, pharmacists, nurses, and others working in paramedical professions; medical schools; health phases of public schools and colleges; the good ladies of the Woman's Auxiliary; newspaper men and women; health committees of chambers of commerce and service clubs; and lay groups interested in certain diseases as cancer and tuberculosis. It is only as we shoulder our full responsibilities and opportunities of all-'round community service that we will continue to merit the esteem and real affection of the public.

And it all starts in my everyday work in my own office and radiates out from there—as is also true of you. Let's be faithful in service not only to our patients but also to our communities.

JUSTICE FOR 10,000,000 SELF-EMPLOYED

Physicians have a definite stake in the Jenkins-Keough bills now pending before Congress, which would permit self-employed individuals to participate in restricted retirement or pension plans, with certain income tax benefits or savings. For years workers in industry

and even officers of corporations have been able to have part of their incomes put into retirement or pensions, with such deposits being deductible in computing income taxes, while 10,000,000 citizens—physicians, dentists, lawyers, architects, insurance and real estate agents, smaller merchants, and others—have been penalized by being self-employed and therefore denied certain tax privileges enjoyed by corporations.

The American Thrift Assembly is being launched to get these 10,000,000 self-employed individuals informed and activated to personal contacts with Congressmen and later to systematic thrift by annual investments in retirement programs.

Write your Congressman and Senators STAT and let them know of your interest. Then when you hear of an American Thrift Assembly in your community, attend and get still better informed.

APPRECIATION FROM THE HEART!

Your President has enjoyed thoroughly the privilege of chatting with you informally through the President's Page of the *Journal* this year, and he thanks you for being tolerant and patient.

He appreciates deeply the wonderful cooperation he has had from everybody: the central office staff; the Trustees, Councilors, and other state officers; the legal counsel; the 300 faithful members of councils and committees; the officers and members of the Woman's Auxiliary; paramedical groups; the press of the state; members of the Legislature; his own family; and countless others.

And particularly is he grateful for the fine spirit of the best partners a doctor ever had—Drs. Cecil O. Patterson, Herbert A. Bailey, F. Clark Douglas, and John W. Fisher. Frankly, without their wonderful understanding and cooperation your President would have had little time to accomplish anything — and he is humbly and deeply appreciative to everybody.

Gratefully,

Milford O. Rouse, M.D.

ORIGINAL ARTICLES

Prevention and Treatment of Hemolytic and Allergic Blood Transfusion Reactions

WAYNE M. MEYERS

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IN ITS BROADEST SENSE, the term "transfusion reaction" refers to any untoward change in the patient following a blood transfusion. Thus such varied factors as the type of anticoagulant used, emboli production, introduction of an infectious agent, or rate of infusion may be considered as possible sources of transfusion reactions. However, in this discussion, only those responses of the patient referable to a post-transfusion hemolytic reaction or the presence of an allergic state are considered.

Wayne M. Meyers, a junior at Baylor University College of Medicine, last year won second prize in the Schering Award contest for medical students in the United States and Canada with an enlarged draft of this paper.

As recently as 1951, blood transfusions carried mortality rates higher than anesthesia or appendicitis. With elucidation of the causes of transfusion reactions and the use of exacting laboratory techniques, reactions from incompatible blood have decreased. Allergic reactions may be reduced by noting the past history of the recipient and the donor.

Starting in 1900, Landsteiner's studies on agglutinating and hemolytic reactions between samples of human blood gave some explanation for the grave consequences of blood transfusion which had plagued medical practice for several centuries.[37, 38, 39] Landsteiner's investigations culminated in an understanding of the "Individual Differences in Human Blood," for which he was awarded a Nobel Prize in 1930.[40] Thus the ABO blood grouping procedure was established, and some other individual variations in human bloods were noted. The solution of reactions in ABO compatible bloods, however, still remained. The most notable of the intragroup systems, the Rh system, was established by Landsteiner and Wiener.[41] Previously Levine and Stetson had detected the presence of this entity and indicated its possible clinical importance.[45] Elucidation of the causes of the small percentage of reactions which take place in supposedly compatible blood transfusions is still a matter of much concern. As recently as 1951, it was estimated that blood transfusions carried mortality rates higher than anesthesia or appendicitis.[1] Increased transfusion demands in disaster situations (for example, war) have stimulated interest in methods of reducing transfusion hazards.

HEMOLYTIC REACTIONS

Post-tranfusion hemolytic reactions arise as a result of the interaction of erythrocyte antigens with antibodies (hemolysins) in the presence of complement. Usually, antibodies from the patient's plasma combine with the erythrocyte antigen(s) of the donor; however, the reverse situation may obtain. The former is seen most often since the concentration of antibodies in the donor's plasma is usually too low to produce a noticeable reaction on dilution in the recipient; if the antibody concentration of the donor is sufficiently high after dilution, hemolysis of the recipient's cells occurs. Kabat[31] has indicated that as few as 400 antibody molecules may sensitize a single erythrocyte. Wiener and Wexler[66] have introduced the concept that an agglutinogen may be composed of various blood factors.

The occurrence of A, B, and O substances in the human red cell wall has been amply demonstrated; A and B substances have been characterized chemically as polysaccharides.[69] Group O red cells, once thought to be peculiar in that they contained neither A nor B substance, recently have been shown to con-

tain a definite O substance.[68] Additionally, anti-O isoagglutinins have been detected in rare instances in A_1 and A_1B blood.[52] Normally, the plasma of group A individuals contains isoantibodies to B substance and vice versa, while group AB blood contains isoantibodies to neither A nor B substance; group O blood contains isoantibodies to both A and B substance. Thus, requirements for intravascular hemolysis may be met when blood of the improper group is transfused.

The universal donor concept was deduced from the distribution of antigens A and B and their isoantibodies. A group O person is a universal donor since O cells contain neither antigen A nor B and hence are not hemolyzed when transfused into persons of any blood group. However, the use of group O blood universally entails hazards. Apart from the content of possible intragroup isohemagglutinins, the isoantibody titer of the donor's plasma is of importance; for example, if anti-A exists in the donor's plasma in high titer, the erythrocytes of a group A recipient may be lysed. By adding a few milligrams of purified blood group substances A and B to a pint of blood, Witebsky and others[68] were able to reduce isoantibody titers, a procedure which may be useful where only high isoantibody titer O blood is available. Witebsky's experiments revealed differences in the nature of normal anti-A isoantibody and the antibody produced by previous contact with group A substance (pregnancy or transfusion). This latter isoantibody has been called "immune type" and is reminiscent of the incomplete Rh antibody in that a serum milieu is essential for agglutination. Subtype A_1 cells seem to adsorb the "immune" antibody selectively. Immune isoantibodies are considered especially dangerous even in low titers.

Davidsohn[13] has suggested the following procedure when universal donors are used: reject donors having isoagglutinin titers higher than 1:100 or 1:200; determine the presence of immune isoagglutinins and reject blood containing them regardless of titer. Use of A and B substances to reduce isoantibody titers is supported by Davidsohn, but should be reserved only for emergencies, since immune isoagglutinins are not removed and immune anti-A or anti-B may be formed in recipients. Severe hemolytic reactions such as the one reported by Elliott[15] in which O blood with an anti-A titer of 1:32,768 was used could have been averted by applying Davidsohn's principles.

Studies by Crosby and Howard[10] on casualties in Korea requiring large transfusions showed that universal donor blood may not be exceedingly dangerous. No hemolytic reactions were observed in 37 cases transfused with large amounts of universal donor blood. Not only from a study of casualties cared for under their supervision but from a review of statistics from World War II, Crosby and Akeroyd[9] were unable to demonstrate that the use of universal donor blood of low isoantibody titer caused renal injury from hemolysis. Although some hemolysis was detected, attributable to transfused antibodies, "no reactions were encountered and none were heard of in Korea that might have been ascribed to a dangerous universal donor."[9] Since no blood with an isoantibody titer higher than 1:256 was used, the usefulness of selected group O blood in emergencies without serious consequences was demonstrated. In the transfusion of 10,000 pints of group O, low titer, banked blood in Korea, Howard[28] reported only 3 hemolytic reactions. This is interesting since no crossmatch was attempted because of the urgency of the situation and since often 15 to 20 pints were administered. In the future, reactions due to isosensitization may be expected rather frequently in these persons.

Normal isoantibodies to the Rh-Hr system are not known; however, immune isoantibody production in an Rh-negative recipient by transfusing Rh-positive blood occurs often. Such recipients upon subsequent transfusion with Rh-positive blood may suffer a hemolytic reaction. The Rh-Hr system factors vary in antigenicity: Rh_0 (British "D") is the most antigenic and hence responsible for most intragroup hemolytic reactions (approximately 97 per cent). Clift[7] reported a severe hemolytic reaction due to anti-c indicating that the indiscriminate use of Rh-negative blood may be exceedingly dangerous. A similar case was presented by Frick[22] in a woman who had borne 13 children (6 were carriers of "c" antigen). Routine tests did not detect incompatibility in either of these cases. The importance of using sensitive techniques is thus emphasized when recipients with histories of transfusion or pregnancy are being transfused. Isosensitization to the Rh factors other than Rh_0 may produce only mild reactions resembling pyrogenic reactions.[65] Wiener indicated that isosensitization of the Rh-positive individual occurs.[64]

Table 1 lists Rh-Hr and other factors in order of decreasing clinical importance. Rosenfield[53] has made the following statement concerning the various blood factors: "In all probability, only Rh-Hr, K, Fy^a, M, S, s, Jk^a and Fy^b antibodies are capable of causing severe reactions and of these only Rh-Hr, K, Fy^a, Jk^a, S and M have been proved to do so. The P, Le^a, Le^b, 'cold' M, A_1, B_1 and O antibodies are best considered as the cause of confusion in performing crossmatches, rather than as being capable of causing severe transfusion reactions." Prevention of hemolytic reactions depends upon the detection of incompatibilities between donor and recipient. In recent years the incompatibility tests have been considerably refined; however, unexplained hemolytic reactions still occur. Strict attention to the techniques employed and knowledge of their limitations would reduce the in-

cidence of hemolytic reactions markedly. Discombe[14] has estimated that there is one hemolytic reaction with no apparent cause in 2,300 transfusions. Most group incompatible transfusions are avoidable; however, false reactions do occur in the laboratory.[29]

TABLE 1.—*Human Blood Factors Demonstrable by Isoantibodies.*

Factors	Alternate Names	Per Cent of Positive Reactions in White Population*		Comments
D–d	Rh_o–Hr_o	85	63	Anti–d very rare.
C–c	rh′–hr′	73	80	Anti–C rare in Rh–.
C^w	rh^w	1		
E–e	rh″–hr″	30	97	Anti–E more frequent.
K–k	Kell-Cellano	8	99.8	Becoming increasingly important.
Fy^a–Fy^b	Duffy	66	82	One example of anti–Fy^b.
Jk^a–Jk^b	Kidd	77	73	One example of anti–Jk^b.
S–s		56	88	One example of anti–s; numerous examples of anti–S.
M–N		79	71	Anti–N very rare.
Tj^a	Jay	Slightly less than 100		8 examples of anti–Tj^a.
Le^a–Le^b	Lewis	18	72	Associated with ABO secretor status.
Lu^a	Lutheran	8		Of questionable clinical importance.
P		75		No clinical importance.

*In each case in which the factors are paired, for example, D–d, the two values give the incidence of reactions for D and d, respectively.

Modified from Levine, P.; Koch, E. A.; McGee, R. T.; and Hill, G. H.: Rare Human Isoagglutinins and Their Identification, Am. J. Clin. Path. 24: 293 (March) 1954.

Intragroup incompatibilities are not always easily detected, and hence considerable work has been done in this area. Table 1 lists the important antibodies to be expected. There are doubtlessly unknown blood factors and isoantibodies, but these should prove to be exceedingly rare and of less importance statistically. Attention must be focused in this area if the small percentage of unexplained reactions is to be reduced. With the present knowledge of blood factors, more than 50,000 combinations are possible; a single blood sample has been known to be incompatible with as many as 1,000 different samples.[44]

Standard laboratory methods are described in several manuals.[2,50] An important development for the detection of factors involved in hemolysis due to Rh-Hr was the Coombs antiglobulin test.[8] This is a distinct method to detect incomplete antibody (variously called blocking, univalent, or hyperimmune). Recently this test's limitations have been studied by Hill and Haberman.[27] The Coombs test may give false positive reactions due to insufficient adsorption, cold agglutinins, or bacterial contamination; false negative reactions result from insufficient washing of sensitized cells, presence of agglutinoids in the antiglobulin, excessive amounts of anticoagulant, soluble antigens such as Le^a, old blood, bacterial contamination, or extended incubations following addition of antiglobulin. These authors suggested methods for the detection of these false reactions. Morton and Pickles have introduced a highly sensitive trypsin-treated cell method for detecting complete and incomplete antibody.[51] Table 2 summarizes the reaction of both antibody types.

The following steps have been suggested by Unger[59] for routine Rh-Hr determinations: (1) Rh-testing, (2) Rh-Hr typing, (3) tests for sensitivity for Rh-Hr antibodies, and (4) identification of the specificity and titration of Rh-Hr antibodies. Rh typing is carried out on the blood of each Rh_o-negative donor by the rapid slide method. Donors positive for Rh_o variant, rh′ and rh″ factors, are classified as Rh-positive to avoid isosensitization. Rh-Hr typing is performed on all persons who have had transfusion reactions or when crossmatching is difficult.

Rare incompatibilities have been determined by Levine and others[43] using a panel of six selected test cells. Where transfusion difficulties occur, blood from several donors is tested with the appropriate serum. Table 3 shows a representative test panel for the identification of the rare antibodies.

TABLE 2.—*Varieties of Rh-Hr Antibodies.*

Method of Testing	Bivalent	Univalent
Saline agglutination	+	—
Albumin-plasma conglutination	+	+
Enzyme treated cell	+	+
Antiglobulin		+

TABLE 3.—*Antigens in Panel of Group O Test Cells for Identification of Antibodies.*

Rh Antigens Most Likely Genotype		Other Antigens							
		MN	Kk	Ss	Jk^a	Fy^a	Le^a	P	Lu^a
R^1R^1	DCe/DCe	MN	O+	++	O	O	O	O	O
$R^1{}^wr$	DC^we/dce	N	O+	O+	+	+	+	+	+
R^2R^2	DcE/DcE	N	O+	O+	O	+	O	O	O
r′r	dCe/dce	M	O+	+O	+	+	O	+	+
r″r	dcE/dce	MN	O+	++	O	+	O	+	O
rr	dce/dce	M	++	O+	O	O	O	O	O

After Levine, P.; Koch, E. A.; McGee, R. T.; and Hill, G. H.: Rare Human Isoagglutinins and Their Identification, Am. J. Clin. Path. 24:297 (March) 1954.

Anti-c, anti-e, and anti-K are considered the most important rare antibodies and commercial panel test cells are available for their detection. Rosenfield[53] has described techniques for "detecting every human isoantibody known."

These tests are aimed at one immediate goal—to find a donor whose red cells lack a blood factor for which the recipient possesses an isoantibody. Additionally, it is important to prevent the injection of a blood factor which the recipient does not possess in order that he will not become isoimmunized. Many cases are on record in which a person has become sensitized to a multiplicity of blood factors. Thus the recipient's serum should be checked before each transfusion if some time elapses between transfusions, since there is always the possibility of the recipient becoming isoimmunized in the meantime.

The aforementioned procedures in principle constitute the only prevention for hemolytic transfusion reactions.

TREATMENT

Treatment of transfusion reactions varies according to severity and is prompted by the clinical symptoms. The effects seen along with variations in blood volume administered have been studied and tabulated.[14]

The symptoms of the patient transfused with incompatible blood have been variously described, Denis' description given in 1667 being a classic.[54] Stevens[56] has described the hemolytic reaction concisely:

> . . . Patients experience a full feeling in the head, headache, severe chill with fever, and often nausea and vomiting. Usually there is bilateral flank pain. Shock and orthostatic hypotension are not so outstanding. The patient may after a short time return to a feeling of well-being, but the danger is not over until it is demonstrated that the kidneys have escaped damage.

Free hemoglobin must be demonstrated in the patient's serum to substantiate a hemolytic reaction

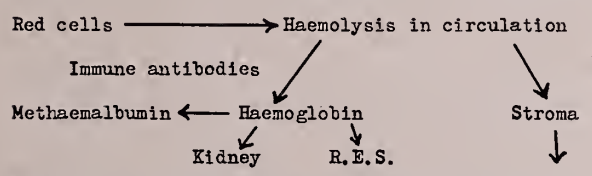

Fig. 1. Diagram showing the fate of intravascular hemoglobin. [Modified from Walsh, R. J.: Blood Transfusions and Acute Renal Failure, Med. J. Australia 1:219 (Feb. 12) 1955.]

diagnosis. The fate of intravascular hemoglobin has been diagrammed by Walsh[61] (fig. 1).

Hemoglobin release in acute renal failure following hemolytic transfusion reactions is of questionable importance.[14] Discombe's conclusions are that hemoglobin excretion is virtually innocuous; most patients subjected to hemolytic reactions are unlikely to develop anuria no matter how much incompatible blood is received; a few with some biochemical disorder causing renal function impairment (for example, dehydration or alkalosis) may develop anuria without shock or hypotension and may die. A few may show an allergic response, develop hypotension, anuria, and die within a few hours or several days. (Such allergic responses need not be concerned with blood factor systems, but may be related to some other component in blood.) The allergic hypothesis with the kidney as the shock organ is attractive since in paroxysmal hemoglobinuria the release of massive amounts of hemoglobin does not produce the symptoms sometimes seen in hemolytic reactions. Again this concept is tenable from studies conducted on the pathogenesis of black water fever. Quinine treatment is considered to be a precipitating factor in the ensuing anuria, its role being haptenic in nature. Fischel[18] has raised some provocative questions against the allergic basis of nephrosis, especially as regards the levels of serum complement as a criterion.

That severe renal damage may follow the administration of only small amounts of incompatible blood indicates the importance of the individual response; conversely, the transfusion of 1,500 ml. of incompatible blood may produce no renal damage, only jaundice.[16] The essential pathologic picture of the kidney in fatal post-transfusion hemolytic reactions is (1) stromal edema with cellular infiltration; (2) necrosis of epithelium of the ascending limb of Henle and of the distal convoluted tubules; (3) tubulovenous anastomoses; and (4) formation of hemepigment casts.[14]

Upon diagnosis of a hemolytic reaction by detecting free hemoglobin in the patient's serum, the following additional tests have been suggested by Davenport:[12]

1. Serum bilirubin, urine urobilinogen, urobilin.
2. Azotemia, Cl^-, Na^+, K^+, in the event of urinary suppression.
3. Carbon dioxide combining power.
4. Urine acid-base reaction.
5. Examination of urine sediment.
6. Kidney function and, in some cases, liver function tests.
7. Hematologic studies.

Although sodium lactate or sodium sulfate is indicated by some[12] to relieve shock and hypotension, it is considered hazardous by others[14, 47] owing to ionic disturbances resulting in cellular dehydration. Fatal renal failure is too infrequent to warrant jeopardizing all anuric patients with such agents. Evans[16] has indicated that he does not agree that sodium sulfate is harmful, but that it may serve as a diuretic. The production of alkaline urine is considered by many to be

unimportant in preventing anuria. Administration of compatible blood, dextran, or plasma may relieve the shock and hypotension, and since these colloids are retained in the blood stream their action helps maintain blood volume. Vasopressors such as noradrenalin and methylamphetamine are considered useful in relieving peripheral dilatation if hypotension persists, the latter perhaps being more useful in maintaining better kidney circulation.[14]

The supportive treatment given anuric patients is the most important factor in recovery or death. Fluid and ionic balance are of utmost importance. These factors recently have been evaluated on both patients and dogs by Hamburger and Mathe,[25] and the following information is taken from their work. An accurate indication of water need is given by the symptoms and osmotic pressure of the plasma—for example, thirst and high osmotic pressure indicate a need of water. The diet should be salt free; however, care should be exercised since in untreated cases cellular overhydration and extracellular dehydration usually follow. In such cases besides fluid restriction, intravenous hypertonic saline solution may be given with caution to prevent pulmonary edema. In severe acidosis citrate, bicarbonate, or lactate solution may be used with the saline. Extrarenal dialysis is advised in extreme cases to remove fluid. The use of Bull-Borst regimen[4, 6] for anuric patients may be advisable.

Immediate exchange transfusions following hemolytic reactions are advocated by many, the rationale being that the incompatible red cells are removed.[32, 33, 36] Walsh[61] has expressed the belief that exchange transfusion to remove incompatible red cells may be both impractical and useless: impractical because of the large volume necessary (to be 90 per cent effective in exchange, 11 L. of blood are necessary for the average person) and useless because by the time exchange transfusion is initiated the hemoglobinemia has taken place and the unlysed cells destined to harmless destruction. Exchange transfusion may correct a hyperpotassemia following intravascular hemolysis, since sudden hemolysis may liberate sufficient potassium to cause cardiac arrest.[62] Renal impairment adds to the likelihood of potassium intoxication. Other methods are also recommended for the correction of hyperpotassemia: peritoneal dialysis, intestinal dialysis, use of the artificial kidney, or ion exchange resins.[61]

ALLERGIC REACTIONS

Allergic and pyrogenic reactions to transfusion are sometimes considered together; however, the allergic reaction will be emphasized here. Kilduffe and DeBakey[34] have divided this type of reaction as follows: (1) relatively mild, characterized by urticaria, slight angioneurotic edema and eosinophilia; (2) moderately severe, typified by difficulty in breathing, asthmatic rales, and involuntary defecation and micturation; and (3) severe, resembling anaphylactic shock which occurs during or soon after the transfusion. The incidence of allergic reactions is difficult to assess, primarily because of the variations in methods of recognition by different observers. It is roughly estimated as occurring in approximately 1 per cent of all transfusion reactions.[49] Even though these reactions are generally relatively mild, they should be considered seriously. Allergic reactions are often important because this insult on the patient, in addition to the condition for which transfusion was indicated, may produce grave results. Reactions of similar degree in healthy persons most often would be of little consequence.

The mechanism of allergic reactions is obscure, in contrast to the well delineated hemolytic reaction. Until this is solved, their effective prevention and treatment are unsure. It is generally assumed that the allergic reaction results from antigen-antibody combination.[5, 11] This combination may cause the formation of histamine or histamine-like substances which are physiologically active. Serum proteolytic enzymes have been implicated tentatively in the release of histamine by Gell[23] and others. The proenzyme plasminogen has been isolated from serum in a reasonably pure state.[35] This enzyme is activated by certain kinases,[58] and there are natural inhibitors present in human serum. The combination of antigen and antibody and the resulting complex may either reduce antiplasmin concentration or play some role in the actual activation of plasminogen. Such a theory is attractive, but there is evidence that plasmin can be injected into human subjects without producing allergic symptoms regularly.[19] The fact that known trypsin and plasmin inhibitors (for example, soybeans) may be allergenic does not obviate this theory since they would be acting as antigens to "trigger" the protease system while the concentration may be much too low to act as an effective antiplasmin. Other explanations of basic allergic mechanisms at the present are inadequate.

PREVENTION AND TREATMENT

The prevention and treatment of allergic transfusion reactions are on a somewhat empirical basis. Measures should be taken to prevent both the sensitization of recipients to foreign materials and the passive transfer of hypersensitivity. Use of fasting donors may reduce reactions due to food substances to which the recipient is sensitive. Such a practice would be of use in an exquisitely sensitive person,

but would be impractical on a large scale. Davenport[12] has eliminated all dietary rules for the donor and claimed no increase in allergic reactions was seen. Besides known substances such as food, other materials in blood may cause allergic reactions.[24, 48] These factors are usually manifest in repeated transfusions from the same individual when sufficient time has elapsed between transfusions to permit sensitization. Several cases are known in which the recipient developed a hypersensitivity by passive transfer; hypersensitivities have appeared to such materials as horse dander, horse serum, and strawberries following transfusion.[34, 57] Thus it would seem advisable not to use blood donated by a known allergic person.

Allergic type reactions have been attributed to other factors such as "early toxins" from nonpathogenic organisms or other enzymatic action in the blood.[26] In addition, the various principles which may cause pyrogenic reactions may be considered in this group since some have suggested an allergic basis for such reactions. This postulation is predicated primarily on the fact that both allergic and pyrogenic reactions are reduced by treatment with antihistamines.

Ferris, Alpert, and Coakley[17] have recommended the addition of antihistamines to blood (possibly also epinephrine hydrochloride) before transfusion in known allergic patients, with additional treatment by appropriate routes as required. Response was better when these drugs were used prophylactically rather than in treatment of reactions. The use of pyribenzamine hydrochloride in the blood reduced allergic reactions from 2.69 to 0.16 per cent and pyrogenic reactions from 4.31 to 0. per cent. Since 1,349 pints of blood were used, these reductions are significant. Hemolytic reaction symptoms were not masked in this investigation. The direct addition of procaine to blood before transfusion has been reported to reduce the incidence of pyrogenic reactions, but not allergic reactions.[46, 70]

Recently chlorprophenpyridamine maleate (Chlor-Trimeton Maleate) has received attention as an effective agent in reducing allergic and pyrogenic transfusion reactions. In a study covering several years' experience, Frankel and Weidner[20, 21] reported the incidence of allergic or pyrogenic reactions in control patients as 3.6 per cent (419 transfusions) while in those receiving blood containing the drug (10 mg. per pint) the incidence was 0.3 per cent (645 transfusions). Similar conclusions as to incidence reduction and dosage were reached by Simon and Eckman.[55]

Winter and Taplin[67] presented data on reaction rate reduction with Chlor-Trimeton in allergic and nonallergic patients. Some of the conclusions from this study were that allergic reactions occurred following transfusion about 10 times more often in known allergic persons than in nonallergic persons (febrile reactions are about equal); mixing the drug in the blood was more effective in reducing reactions than intravenous administration before transfusion; no serious drug reactions were noted, but mild drowsiness was experienced by most patients; small doses of the drug (2 to 4 mg.) given intravenously relieved the symptoms of immediate allergic reactions. These authors recommended the prophylactic use of antihistamines only in those patients having a history of allergic reactions. Winter and Taplin estimated that 1 of every 6 or 7 such patients has an allergic reaction in transfusion, while in nonallergic patients the rate is about 1 per cent. These investigators noted no effect on febrile reactions in contrast to other observers.[21, 55] The indiscriminate use of the drug in all transfusions is not recommended, especially in surgical procedures in which the patient is anesthetized and where multiple transfusions are given.

CONCLUSION

Several developments are reviewed which have reduced the incidence of transfusion reactions in recent years. Important among these are recognition of the Rh factor and other systems such as Kell, and the use of more sensitive methods in laboratory tests. However, the increasing use of plasma substitutes such as dextran may contribute. In regard to the use of dextran, the possible production of hypersensitivity should be considered in repeated administration.[30] Where only fractions of blood are needed, it seems advisable to utilize only that part essential to relieving the disease condition; for example, in anemia only the cells should be administered. Thus the possibility of introducing dangerous blood components is reduced. Barnard[3] has suggested a transfusion unit of human erythrocytes with cholinesterase and antibiotics. With dextran used in this preparation the cells are presumably maintained in such a state that they are less susceptible to hemolysis. Cholinesterase is added as a stimulant to reduce shock and to reduce red cell permeability. It is understood that many millions of pints of human cadaver blood have been used in Russia and Poland without serious reactions provided the blood was collected within six hours following death. The use of nonhuman blood products in transfusion is not promising.[60]

SUMMARY

Because of use of the exacting laboratory techniques available today and strict attention to the handling of each blood transfusion, reactions due to

the administration of incompatible blood occur infrequently. Allergic reactions are not predictable, but the incidence may be reduced by noting the past history of both the recipient and the donor. Possible causes of each type of reaction, their prevention and treatment are considered in the light of current knowledge.

REFERENCES

A list of bibliographic references may be obtained from the author.

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Surgical Treatment Of Cancer Of the Breast

MELVIN A. CASBERG, M. D.

Austin, Texas

IT IS the purpose of this paper to discuss briefly and simply certain basic principles in the surgical treatment of those stages of cancer of the breast in which radical surgery is indicated. The techniques of diagnosis are presented only insofar as these may relate to the major surgical procedure. The much debated question of preferential therapy for breast carcinoma does not lie within the purview of this presentation, other than the submission of certain clinical criteria of operability as outlined by Haagensen.[1] Carcinoma of the breast in women of all age groups who are in a condition to withstand surgery should be treated by radical mastectomy with these possible exceptions:

Dr. Melvin A. Casberg, vice-president for medical affairs of The University of Texas, presented this paper at the Clinical Symposium on Management of Carcinoma of the Breast, The University of Texas M. D. Anderson Hospital and Tumor Institute, November 9, 1956.

The surgeon who treats cancer of the breast should apply his skills in psychological preparation of the patient and her husband and in rehabilitative measures postoperatively as well as in a gentle yet thorough surgical technique for best results. Both the patient and the surgeon should be ready to proceed with radical mastectomy immediately should the results of biopsy indicate its desirability.

1. Extensive edema of the skin over the breast.
2. Inflammatory type of carcinoma.
3. Carcinoma developing during pregnancy or lactation.
4. Satellite nodules in the overlying skin of the breast.
5. Parasternal tumor nodules.
6. Edema of the arm.
7. Proved supraclavicular metastases.
8. Distant metastases.

The discerning surgeon, having evaluated the diagnostic pitfalls of chronic cystic disease with its menstrual rhythmic periodicity, must face the question of a space occupying lesion of the breast with only one answer, microscopic tissue examination. Parenthetically, there is only one place where this biopsy should be performed, and that is in the operating room, where all of the personnel and facilities are available for the completion of any procedure dictated by the findings of the frozen section. Aspiration biopsy is mentioned only for condemnation, for, though there are some authorities who advocate this technique, certain serious disadvantages such as the uncertainty of exact tissue source, the lack of clearly defined histology, and the repeated tissue trauma of the procedure preclude the use of this method in favor of incisional or excisional biopsy.

PREOPERATIVE PREPARATION

Preoperative preparation in anticipation of possible radical surgery involves a scope broader than is realized by many surgeons, ranging from the physical evaluation of the total patient to her psychological preparation for a disfiguring surgical procedure. Laboratory tests must clarify the body's general cellular and chemical fitness for the stress of trauma, and thereby aid in the determination of supportive measures to be applied before, during, and after surgery. Precaution dictates a minimum of a roentgenogram of the chest with further studies of the spine or other skeletal areas should the clinical history so suggest.

The role of the pathologist is a decisive one in this particular type of surgery, and he should be given every opportunity to familiarize himself with the various related factors. His careful examination of the patient preoperatively as well as his presence in the operating room during the biopsy will furnish supplemental information of aid in the microscopic diagnosis. Close cooperation in this manner accrues to the benefit of the patient.

Many doctors overlook the important role played by the husband in the psychological rehabilitation of the amputee. In younger and middle aged married women especially, there develops rather frequently a morbid sense of sexual imperfection following this type of surgery. The mental torture of this situation may far exceed the postoperative physical pain, and the surgeon has an obligation to do all within his power to prevent this complication. Careful indoctrination of the husband will help create an understanding and compassion which will tend to dispel mental anguish. In a similar manner, the surgeon should discuss with the patient such factors as the possible minimal limitation of shoulder motion and the availability of prosthetic appliances should the radical procedure be necessary. A patient thus prepared withstands both the psychological and physical trauma far better than one who faces these fears with ignorance and uncertainty.

OPERATIVE TECHNIQUE

Just as unsterile surgical techniques can spread bacterial contamination and infection, in like manner, careless handling of tumor tissue can disseminate cancer cells. Some surgeons unfortunately have associated radical surgery with a degree of roughness, incorporating stretching, tearing, and crushing into the procedure as though by such acts they were venting their wrath on the malignant process. No surgery demands a more careful and gentle handling of tissue than does that directed against the eradication of malignancy. Some years ago, the late George Crile divided surgeons into two classes: the rough or "carnivorous" type and the gentle or "herbivorous" type. The "carnivorous" surgeon has no place in the surgery for carcinoma of the breast.

BIOPSY

The patient is positioned and prepared on the operating table for radical surgery, including the preparation of the thighs as possible donor sites for skin grafts. Whenever possible, a general anesthetic should be used so that the patient does not suffer through the period of diagnostic indetermination. In the presence of the pathologist, the incisional biopsy is performed, removing the entire tumor if this is small or a section if it is large. Great caution must be exercised to prevent pressure or squeezing of the breast during the biopsy. While the pathologists report is awaited, preliminary hemostasis is carried out and the wound lightly packed with moist gauze. If the report is one of a benign lesion, the tumor, if it has not been removed, is excised and the wound closed hemostatically by careful apposition. If, however, the report is one of malignancy, the gauze may be left in the wound, the skin edges approximated carefully by a running suture, and the wound further sealed against the spillage of cancer cells by the application of collodion or some similar preparation.

At this stage, the entire operative area is considered to be contaminated and is re-prepared as in the original procedure, including a complete change of towels and drapes. The operating team participating in this primary act changes gowns and gloves and the instruments used are discarded as contaminated. There is no more logic to dispensing with these precautionary measures than there is to that of deliberately entering the peritoneal cavity through an abdominal wall carbuncle.

PRINCIPLES OF ADEQUATE SURGERY

Most operative techniques in radical mastectomy are modifications or adaptations of those developed by Halsted and Willy Meyer. In competent hands, the exact method makes little difference, as long as the exposure does not unnecessarily defunctionalize the shoulder and permits compliance with the four principles advocated by Halsted and Meyer, namely, excision of the skin overlying the tumor, excision of the pectoralis major and minor muscles, adequate axillary dissection, and removal of this entire tissue in one block. The step by step techniques of radical mastectomy are described in considerable detail by all standard textbooks of general surgery, and rather than repeat the minutiae of a more or less standardized procedure, it is the purpose of this paper to emphasize certain basic principles which are significant to the success of this therapeutic endeavor.

The first operative decision confronting the surgeon who accepts the responsibility for surgery of carcinoma of the breast is the adequacy of the procedure. If the patient's condition is such that she can be expected to stand a radical operation and if the spread of the malignant process appears to be limited to the area readily accessible to the scalpel, then any limiting compromise on the extent of the surgery is poor surgical judgment and contributes to a lower survival rate. Incomplete operations are still commonplace, due either to the surgeon's lack of confidence in the effectiveness of the radical attack or his lack of surgical competence. By way of clarification, adequate surgery as herein defined does not refer to the ultraradical methods involving such procedures as the partial osseous decortication of the thorax. It is difficult to associate the invasion of supraclavicular or mediastinal lymph glands with curability, and surgical exercises related to these areas still should be considered as experimental and of unproven value until further evidence is available.

SKIN INCISION

A typical skin incision giving adequate exposure for this procedure is one which, with the arm abducted to right angles, commences anterior and inferior to the tip of the acromion process over the cephalic vein which lies in the sulcus separating the deltoid from the pectoralis major muscle and then proceeds medially along this plane to a point inferior to the corocoid process, from where it is directed inferiorly and medially encircling the tumor area to terminate in the costo-xiphoid angle of the corresponding side. Under no circumstances should the incision be extended across or into the axilla, for the resulting scar may limit shoulder action. There has been and still is considerable discussion relative to the amount, both in depth and area, of skin which should be excised. Though one may plan to remove an area of skin extending at least 8 cm. from the palpable edges of the tumor, in the final analysis, good surgical judgment alone must dictate the limits of skin excision. Although it is true that experience will develop plans of general applicability, it is dangerous in all cases to regulate arbitrarily by fixed mathematical rules the skin area to be removed, for such a plan will result in excessive denudation in some patients and insufficient excision in others. Some surgeons pride themselves in procedures of a nature so extensive as to require routine major skin grafting. However, in a certain proportion of adequate radical mastectomies, the skin can be closed primarily and without tension; and again, obviously, there are those cases in which a procedure to be effective must leave denuded areas which will necessitate grafting. Certainly, the surgeon's approach to this decision should not be influenced primarily by the problems of skin closure, for the major question at hand is the eradication of cancer.

Inasmuch as the mammary gland embryologically is derived from the derma, one can expect a degree of structural and functional relationship between the breast and the overlying skin. Such an anatomical association dictates that, in the exposure of the operative area, a rather thin skin flap, including the dermal glands and a thin layer of areolar and fatty tissue, be dissected from the superficial fascia.

RESECTION IN CONTINUITY

If one were to attempt to develop a title describing the fundamental philosophy of the intent of radical mastectomy this might be epitomized in the words, "Noncontusive resection in continuity." Such a technique envisions the containment of the disease process within the limits of the tissue mass being resected in such a way that neither rough handling nor the surgeon's scalpel encroaches on the neoplasm and opens a Pandora's box of malignant cells to be disseminated into the highways of the lymph-vascular system.

That part of the surgical procedure related to the thoracic wall does not present any particular technical difficulties, for anatomical landmarks and cleavage planes afford rather constant and identifiable guidance. On the other hand, the axilla, with contents of a greater functional significance and of a wider range of positional variation, presents a distinct technical challenge. It is in this latter area that most of the inadequate and incomplete surgeries fall, and it is within the bounds of the axilla that effective surgery of necessity must be meticulous and time-consuming; otherwise, the term "radical" becomes a mockery.

Procedural planning of the thoracic portion of the operative steps, transecting the humeral, clavicular, and sternal muscle attachments and drawing the excised mass inferiorly and laterally, permits gravity to replace the tension of retractors, so that the weight of this musculo-glandular tissue itself provides a sufficient steady traction. This noncontusive technique of radical mastectomy has been described in detail by MacFee.[3] Removal of the anterior wall of the axilla thus exposes the axillary contents in such a manner as to permit a thorough dissection.

In dealing with cancer, all are agreed that one cannot compromise with the eradication of known accessible malignant cells; however, this truism should not be used as an excuse, in the presence of a lack of anatomical and physiological knowledge, for the unnecessary and wanton removal of normal tissue. Frequently, it is necessary to sacrifice blood vessels and even nerves in an effort to accomplish a cure. Macdonald[2] has shown that resection of the axillary vein not only is compatible with good function, but actually, in certain cases, reduces the secondary inflammatory processes which are conducive to the development of postmastectomy lymphedema. He concludes his presentation by stating, "resection of the axillary vein permits an adequate en-bloc dissection of the apical portion of the axilla."

From a technical standpoint, it is fortunate that the axillary vein and major venous pectoral tributaries lie anterior to the branches of the brachial plexus and axillary artery. The lymphatic system, lying in close relationship to the venous drainage of the anterior and lateral thoracic areas, is thus more readily available for excision. The subscapular, central, and subclavicular groups of lymph nodes are anatomically related to the axillary vein and its tributaries; thus, a meticulous dissection and stripping of the major vein as well as a ligation and excision of the venous branches are in order. As has been mentioned, if deemed necessary, sacrifice of the axillary vein may add to the thoroughness of the procedure. If possible, the thoracodorsal and long thoracic nerves should

be preserved, but even these should be removed if there is clinical evidence of involvement.

The entire surgical procedure should be carried out by sharp dissection, commencing superiorly along the cephalic vein, including the decortication of the axillary vein, and then continuing into the central axillary area with excision of the venous tributaries, lymphatics, and fatty areolar tissue as one mass. The forceful swabbing out of the axilla with gauze is a procedure to be condemned, for it not only fails to remove cancer cells, but actually may aid in their dissemination.

The gentle handling of tissues, careful hemostasis, elimination of dead spaces, and closure without tension are factors more directly related to a smooth postoperative course and the prevention of lymphedema than the actual extent of the surgical procedure itself. Skin closure must be accomplished without tension with the use of grafts when necessary. There are many techniques available[4] for the utilization of excess skin to close defects following radical surgery. Full thickness grafts from this source have an advantage in giving greater protection to the exposed thoracic cage.

The axillary dead space should be drained either passively by rubber drains or preferably by the use of active suction on one or more multiple perforation tubes distributed advantageously under the skin flaps. A pressure dressing of mechanic's waste or sponge not only will minimize oozing and stimulate adherence of the skin flaps, but also will contribute to the comfort of the patient.

POSTOPERATIVE CARE

Early ambulation and early use of the involved extremity will enhance convalescence, both physical and mental. The surgeon's duty is not completed with the discharge of his patient from the hospital, for he must continue in his program of rehabilitation and give close personal support until maximum function has returned. Periodic check-ups are essential, not only to observe and follow up on the effectiveness of the surgery itself, but also to give the patient the mental support and assurance necessary for her smooth convalescence from this particular type of psychic trauma.

CONCLUSION

In conclusion, it should be emphasized that factors contributing to the effective surgical treatment of cancer of the breast include the proper motivation on the part of the surgeon as well as the technical knowledge and facility to accomplish the procedure. The qualified surgeon who is convinced that the radical technique correctly applied affords the best chance for eradication of the malignancy is the surgeon more apt to succeed.

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Dr. Casberg, University of Texas, Austin.

Tumor Seminar

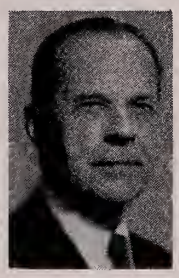
Conducted by

ARTHUR PURDY STOUT, M. D.

New York, New York

THE twelfth annual tumor seminar of the San Antonio Society of Pathologists was held at Brooke Army Hospital, Brooke Army Medical Center, Fort Sam Houston, Texas, October 29, 1955.

The meeting was opened by Col. Charles J. Farinacci, MC, commanding officer of the Fourth Army Area Medical Laboratory. Colonel Farinacci acknowledged the support given by the American Cancer Society and the South Central Region of the College of American Pathologists, and gave credit for the preparation of photographs to Dr. W. T. Hill of the Fourth Army Area Medical Laboratory and Henry Marasco of the Medical Illustration Section of Brooke Army Hospital.



Dr. Arthur Purdy Stout, professor of pathology at Columbia University College of Physicians and Surgeons, conducted this seminar for the San Antonio Society of Pathologists at Fort Sam Houston, October 29, 1955.

Colonel Farinacci then introduced Brig. Gen. Elbert DeCoursey, MC, commandant of the Army Medical Service School, honoring him as one of the prime backers of the annual tumor seminar, who together with Drs. B. F. Stout, A. O. Severance, J. M. Moore,

H. J. Schattenberg, S. W. Bohls, and D. A. Todd, comprised the original group that started the seminars in 1944.

(Dr. B. F. Stout, president of the San Antonio Society, was able to appear briefly during the session, when he gave credit for a great deal of the success of the annual seminars to Dr. Arthur Purdy Stout, who conducted the first two in 1944 and 1945, the proceedings of which were published in the *Texas State Journal of Medicine** and widely quoted.)

Major Gen. William E. Shambora, MC, commanding general of Brooke Army Medical Center, was introduced by General DeCoursey and expressed the pleasure of himself and the entire staff of the center in the presence of the group each year.

General DeCoursey introduced Dr. Arthur Purdy Stout of New York, who is professor of pathology at Columbia University and pathologist at the Institute of Cancer Research.

Dr. Stout: This is the fourth time that I have faced a similar audience under similar circumstances, and it has been interesting to me to observe in the intervening years the spread of popularity of sessions of this sort. I think that they have been really worth while. They have spread knowledge, and the present generation of pathologists is much better equipped to deal with tumor problems than they were in 1944. The differences that I notice in myself are less encouraging to me. I thought I was pretty good in 1944. I haven't looked it up, but I don't recall that I had much hesitancy about the diagnoses that I thought were correct for the different cases. Well, it is different with this set of cases that we are going to tackle today. I feel confident enough to make a definite diagnosis in two-thirds of the cases, but in one-third I have to make them with a question mark; I am far from sure that I am right in those. That is a saddening fact to me. I seem to have gone backwards in the intervening years, although I must say I've had an opportunity for a lot of experience in these years; but certainly I am not as good as I once was. However, perhaps we are growing new kinds of tumors, and the tumors are concealing themselves microscopically with various camouflages just to make it hard for us to recognize them.

CASE 1

Diagnosis.—Basal cell carcinoma (?) of scalp.

Contributor.—Col. C. J. Lind, MC, Brooke Army Hospital, Fort Sam Houston.

History.—A 20 year old boy had a progressive, slowly growing, nonulcerated lesion of the scalp for five years. Three months prior to biopsy it began to ulcerate superficially. The wound failed to heal. There were bilateral enlarged occipital nodes.

Submitted Diagnoses. — Adnexal (hair matrix and/or sweat gland) carcinoma, 21; squamous cell carcinoma, 12; basal cell carcinoma, 5; squamous cell and basal cell carcinoma, 2; adenocarcinoma, 1; undifferentiated carcinoma, 1; junctional nevus, 1.

Dr. Stout: I think everybody agreed that this was an epithelial type of growth, but it isn't generally agreed as to exactly what the nature of the growth was. It is interesting to me that one person even thought that it was a glandular carcinoma, and one thought it was a nevus or nevoid tumor. The diagnosis of junctional nevus surprises me a little because it seemed to me like a rather heroic form of junctional nevus.

I have four sections to study; two of them stained with hematoxylin and eosin and one each stained with Masson's trichrome and mucicarmine stains. The tumor, which lies chiefly in the corium but has invaded the subcutaneous fat and superficial fascia, is composed of freely anastomosing cords of spindle epithelial cells, the vast majority of which show no intercellular bridges and no keratinization or pearl formation. Unfortunately my sections show almost no areas where the epidermis and the tumor are both present. In one such place, two small groups of tumor cells show intercellular bridges and a tendency toward the formation of a pearl. Elsewhere the central parts of many of the thicker cords show central necrosis. The tumor infiltrates to a limited degree. The mucicarmine stain is negative for the tumor cells.

We must ask ourselves, is this a primary scalp tumor in a 20 year old boy which has been present ever since he was 15 years old, and if primary, what kind of a tumor is it? Its continued presence for five years without any suggestion of a growth elsewhere is strongly in favor of its being primary here in the scalp. If so, is it an epithelial tumor? The answer must be yes, not only on the basis of the appearance of the cells, but most of all because of the discovery of intercellular bridges in one group of tumor cells. This observation also automatically rules out the possibility of malignant melanoma. This leaves us with a choice between basal and squamous cell carcinoma coming either from the epidermis or some of the skin epithelial organs and structures. The major portion of this tumor has the general appearance and arrangement of a basal cell tumor, and the fact that in one group of tumor cells there is some epidermoid differentiation does not invalidate this point of view because such a variation is known to be of frequent occurrence.

Whatever this is, it is unusual because it developed in a 20 year old boy. It could be of course either basal or squamous. I could find, in the differential stains that I did, no evidence of secretion of mucicarminophilic material, and I would think that it was

Stout, A. P.: Tumor Seminar, Texas State J. Med. 40: 366-391 (Nov.) 1944; 41:564-597 (March) 1946.

not any of the adenocarcinomatous types of growth with which I am familiar that come from the sweat glands or the sebaceous glands. I am inclined to rule those two out. I think that the diagnosis really lies between basal cell carcinoma and squamous cell carcinoma.

In my experience a squamous cell carcinoma of the skin, whether in young or elderly people, when it is completely undifferentiated is a truly malignant tumor and during a period of five years is apt to have metastasized. Moreover, the cases that I have seen have not grown in this fashion, which to me is much more suggestive of a basal cell type of growth. It is a really unusual tumor.

In my opinion, therefore, this is a basal cell carcinoma of the scalp which appeared first at age 15. This is, of course, unusual but not at all unknown. We are not told whether this boy has xeroderma pigmentosa or any familial tendency to develop such a tumor in childhood. However, I gather from MacKee and Cipollaro that isolated basal cell tumors have developed without known cause in children as young as 10 years. If this is accepted as a basal cell carcinoma, the chances are good that the enlarged occipital nodes on both sides are secondary to the ulceration of the tumor and are not due to metastases. The extreme rarity of metastases from basal cell carcinomas has been emphasized by Lattes and Kessler as well as by many others.

Now, I'll be glad to debate this with anyone who wants to debate it.

Dr. Béla Halpert, Houston: I beg to disagree on the nature of this tumor. Perhaps it is splitting hairs, but the naming of the neoplasm should provide information on one's thinking about its nature. In this particular instance the cells, to be sure, arose from cells of the epidermis. In the epidermis there is the basal layer of cells capable of division, and there are the cells nearby of the spinous layer also capable of cell division. We are accustomed to think that if the proliferation starts in the basal layer it will produce a basal cell tumor, and if it starts in the spinous layer it will be a squamous cell carcinoma. This concept is not valid. When a cell divides in the epidermis, it does not disclose characteristics of either of these cells. The direction in which the neoplastic cell differentiates depends on the stage of its development when it became a neoplastic cell. A basal cell tumor has properties of imitating a hair follicle, and it usually does this. I wouldn't make a diagnosis of any epithelial neoplasm which doesn't have a palisading cell layer on the outside of these cell nests and which sort of sweeps with the undetermined margin into, or touches, the supporting connective tissue. There is a fundamental difference between the basal cell tumors and the squamous cell carcinomas. The term "carcinoma" should not be used in connection with a basal cell tumor because that implies a stigma. A basal cell tumor is a borderline lesion between a benign and a malignant growth. I believe that all the morphologic evidence that is available here suggests that this is a squamous cell carcinoma rather than a basal cell tumor.

Dr. Stout: Well, there are two ways, of course, of approaching these tumors, one of which is the purely scientific way in which you attempt to sort out the tumors in order to give them the proper kind of name, depending upon the exact cellular origin, irrespective of the clinical behavior; whether or not, for example, the tumor will show progressive invasive characteristics and/or metastases. The ideal is to combine the scientific approach with the biological or clinical approach, because what we want to gain as aids to therapists is an insight into how a tumor is going to behave—what the chances of metastases are and what the chances of infiltrative growth and spread are. This tumor has existed already for five years and apparently it has not gone very deeply. It doesn't seem to me that an undifferentiated squamous cell carcinoma that had this degree of lack of differentiation would have remained as localized and without proved metastasis for all this length of time. I may be all wrong about it. I have also tried to be scientific, and I think there is a form of basal cell tumor that does not show the palisading that Dr. Halpert mentioned. At least I have used that term in some rodent ulcers, for example, that have gone on from the inner angle of the eye into the orbit, and eventually into the brain, behaving like the classical rodent ulcer, and they lacked any palisading. I am willing to admit that this lesion is more likely to belong to that class of growth than to the squamous class of growth.

Dr. J. J. Andujar, Fort Worth: I would like to point out that the picture which was projected was that of a Negro. Is this patient a Negro? And if so, would you comment on the incidence of basal cell carcinoma—I use the word "carcinoma" in its loose sense—in the Negro patient?

Dr. Stout: Well, I think it is much less common than in the white, and rather rare. I think that this is altogether an uncommon tumor anyway, and just on the basis of probabilities, I don't think we ought to place too much reliance on whether he is a Negro or not. You will go a long time, I think, before you see another tumor like this.

Col. C. J. Farinacci, Fort Sam Houston: This patient is a Negro.

Dr. Halpert: I want to ask Dr. Stout how he would have called this tumor if he hadn't had any history at all, just the slide?

Dr. Stout: I fluctuated around a lot when I first examined this, and it is practically impossible for me to answer that question because I did know the

history in advance; and how I would have thought about it, or what I finally would have thought about it, I really don't know. When I am prejudiced by the history, I can only guess what I might have said. I would like to be able to say I would have come to the same conclusion and think it is a basal cell carcinoma, but I really don't know that I would have done so.

Dr. F. C. Bornstein, El Paso: Since a question of the nature of basal cell carcinomas has been raised, do you consider them capable of metastasizing, or have you ever observed them metastasizing?

Dr. Stout: Yes, sir, I have. Dr. Lattes, who succeeded me in the job of surgical pathologist at the Presbyterian Hospital, reported 2 cases of metastasizing basal cell carcinoma: 1 that we had had at the Presbyterian Hospital and 1 that they had had at the New York Postgraduate Hospital. I think you will find, oh, a handful of authentic cases of basal cell carcinoma that would satisfy even Dr. Halpert as basal cell carcinomas, that have really metastasized; but it is so rare that I don't think one needs to take it into consideration in treatment. It is an oddity when one does metastasize.

Follow-Up.—At the time of the original operation (January 6, 1953) the left occipital lymph node was excised and histologically showed reactive hyperplasia. On September 1, 1954 (20 months later), the patient developed a mass in his right supraclavicular region, which was excised. It turned out to be tumor resembling the original scalp lesion. Chest roentgenograms, made in August, September, and December, 1954, and April, 1955, were essentially normal. Roentgenograms September, 1954, of the skull and mandible and lower dorsal vertebrae were negative, as was an intravenous pyelogram made the same month.

Gen. Elbert DeCoursey, Fort Sam Houston: There has been a request that Dr. Stout say something about "basal cell carcinoma" versus "basal celled carcinoma." I think this was brought up by Dr. Foot's article.

Dr. Stout: I don't think we ought to enter into etymological discussion at this time. It would carry us too far. I think, in spite of Chandler Foot, that probably it isn't quite as good English to say "basal celled" instead of "basal cell." But whether or not it is better English to say one rather than the other, they both intend and mean the same thing. The vast majority of people use the term "basal cell," and I don't think that Chandler Foot is going to be able to change that tendency. I have struggled in the past to put across other than the popular names for things and have had little success. I have had a struggle with most of the dictionaries of the country over the spelling of the word "neurilemoma," and the dictionaries are winning, as I felt sure they would, because they have an unfair advantage in that people tend to believe what they read in dictionaries. They are not controversial and curious enough to investigate to see whether what a dictionary says is really so. Usually it is, but not invariably. On several occasions I have had the strange task of reviewing medical dictionaries; I don't know how you would set about it, but it rather made me aghast to think of reviewing a dictionary. How could any one individual look over a dictionary and be qualified to comment, favorably or unfavorably, on all of the words in it? It is absolutely impossible. So I made up a way of doing it for myself, of simply looking up the words that I knew something about, and seeing how the dictionary handled them; and I regret to say that some of the dictionaries handled them very badly, indeed. I won't go any further into the matter, but don't believe everything you read in a dictionary, even as to spelling. It isn't always correct, or properly founded. Like every other thing the dictionaries tend to copy one another and former editions, without looking into the matter, whether or not the original dictionary word was justified or wasn't justified. So as far as I know, "basal cell" and "basal celled" mean the same thing, that is, a tumor presumably arising from the basal cells of the epidermis.

CASE 2

Diagnosis.—Malignant hemangioendothelioma of scalp.

Contributor.—Col. C. J. Lind, Brooke Army Hospital, Fort Sam Houston.

History.—A 63 year old white man had noted a progressive violaceous discoloration of the frontal scalp for the past six months. Following incidental trauma three months before, ulceration developed. The violaceous discoloration spread. There was no evidence of lymph node involvement. Following biopsy, the scalp was resected. The slide represents a section through the violaceous portion of the resected scalp. While the patient was in another hospital roentgen-ray films of lungs showed extensive metastases in both lung fields. The patient died three months postoperatively. Permission for autopsy was refused.

Submitted Diagnoses.—Malignant hemangioendothelioma (angiosarcoma), 23; hemangioendothelioma, 3; Kaposi's disease, 3; malignant melanoma, 5; amelanotic malignant melanoma, 2; basal cell carcinoma, 4; squamous cell carcinoma, 1; undifferentiated carcinoma, 1; hemangiopericytoma, 1.

Dr. Stout: The one favored, of course, is that form of angiosarcoma called hemangioendothelioma, with another variety of angiosarcoma, Kaposi's disease, coming in also; then a scattering of other diagnoses, even including hemangiopericytoma. Wherever I go to moderate seminars everybody thinks that there must be one case of hemangiopericytoma in the lot, and so in each case someone suggests hemangiopericytoma hoping to hit the bull's-eye.

The characteristics of this fascinating tumor are that it seems to be made up of many freely anastomosing dilated capillaries which are lined by anaplastic cells showing mitoses. In places the tumor

cells form solid cords without lumens and in still others tumor cells form solid amorphous masses. A silver reticulin stain shows that the tumor cells do not form connective tissue fibers of any kind. The Masson trichrome stain confirms this, and the mucicarmine stain shows no evidence of secretion by any of the tumor cells. In the more solid portions of this neoplasm it is possible to observe that there are also unaffected blood vessels scattered among the undifferentiated tumor cells.

This is an example of a rare malignant tumor. There is little doubt in my mind that this is a malignant hemangioendothelioma. There is no reason to suppose it is a metastasis from a chorionepithelioma, which is the principal mistake in diagnosis sometimes made because it can imitate this tumor; but the tumor cells in this growth are uniformly the same and there are no evidences of syncytia formation. It seems safe to exclude any of the malignant epithelial tumors which might be primary here or might be metastatic. When I looked up our cases of malignant mesenchymal tumors in September, 1951, out of 1,349 only 34 were classified as malignant hemangioendothelioma. I was unable to find a suitable case of this kind during a two-year period when I was preparing the cases for the Seminar on Tumors of the Soft Tissues for the American Society of Clinical Pathologists.

As of September 1, 1955, this figure has nearly doubled, for there are now 65 cases of malignant hemangioendothelioma recorded in our laboratory. There are a few doubtful cases in addition, which I have omitted. The neoplasms have quite a wide distribution throughout the body tissues, as table 1 will show.

TABLE 1.—*Malignant Hemangioendotheliomas Recorded in Surgical Pathology Laboratory, Columbia University College of Physicians and Surgeons Up to September 1, 1955.*

Tissues Other Than Soft Tissues		Soft Tissues	
Bones	10	Lower extremities	5
Breast	10	Upper extremities	3
Spleen	6	Muscles	3
Liver	2	Neck	5
Penis	2	Head	3
Pleura	1	Trunk	5
Sciatic nerve	1	Retroperitoneum	2
Nasal cavity	1	Mediastinum	1
Pharynx	1	Orbit	1
Pancreas	1	Joint	1
Uterus	1		
	36		29

This is still a very uncommon malignant tumor. It varies a good deal in malignancy. In the breast it is almost always fatal and is found more often in adolescent girls than in adult women. In the bones it is variable in its behavior and does not always metastasize with any speed. Several of our cases have involved several bones. The small number of cases seen in any one area makes it extremely difficult to predict the behavior with assurance. Almost all cases are characterized by a free interanastomosis of tumor vessels. I do not like to make the diagnosis unless I can find somewhere evidence of multiplication of endothelioblasts in freely anastomosing vessels. Other parts of the tumor may show only sheets of tumor cells without evidence of formation of reticulin fibers, but unless I can find proof that the tumor cells are derived from cells lining capillaries I am unwilling to make the diagnosis.

Now, this to me was definitely a malignant vascular tumor—a rare one, in which the dominant cell type is the endothelial cell. In my classification you can put all the malignant vascular tumors under the general heading of angiosarcoma, if you wish, and then divide that up into subheadings such as the hemangioendothelioma, in which the endothelial cell is the dominant one; the hemangiopericytoma, in which the pericyte is the dominant cell; Kaposi's sarcoma, that highly specialized growth which some people perhaps would like to remove from the vascular category and put into the malignant lymphoma class because some of them are associated with either Hodgkin's disease or lymphosarcoma, but to me that is fantastic. I cannot ever bring myself, I am sure, to call Kaposi's sarcoma a malignant lymphoma. The fourth variant is the lymphangiosarcoma that develops in the swollen arm after roentgen-ray treatment of cancer of the breast, and that can occur even in other places. If you want to add a fifth group, there are the very rare malignant lymphangiopericytomas.

Dr. Béla Halpert, Houston: I want to compliment Dr. Stout on pronouncing Kaposi correctly. That is a rare occurrence.

Dr. Stout: I was taught how to pronounce it by a Hungarian. I don't say Ka-pō'-si's.

Dr. Halpert: Is there any difference between hemangioendothelioma and Kaposi's disease, the lesion that Kaposi called hemorrhagic sarcoma? I agree that this is a hemangioendothelioma, compatible with Kaposi's angiosarcoma.

Dr. Stout: In my opinion they are different. The picture of Kaposi's sarcoma that I use in diagnosis is a tumor in which there is a rich capillary network set in a stroma featuring cells that look like fibrosarcoma cells. I don't see any of that featured here. That is the characteristic picture; of course there are variants from it, but in the great majority of instances that is the picture. I have had some correspondence with Dr. J. F. Murray of the South African Institute for Medical Research in Johannesburg, South Africa, where, as you may know, Kaposi's sarcoma is so much more common in the Bantu colored people than in whites, whereas in this country the reverse is true.

In fact, we exchanged slides on a number of cases because he wanted to see whether the lesions we were calling Kaposi's sarcoma in this country were reproduced in exactly the same way in the Bantu, and they were. There was no difference, histologically. But to me the clinical picture in this particular case is different. I would think that it would be at least unlikely, or rather rare, that Kaposi's sarcoma would make one great big spreading lesion in the skin and subcutaneous tissue without appearing any place else except in a definite metastatic fashion, and I would also think it was extraordinarily rare that it should kill a person in nine months. I've never known classical Kaposi's sarcoma to move that fast. Maybe it does, but to me that is unknown.

Dr. Halpert: I use another criterion, too, in diagnosing Kaposi's disease, namely, the presence of a little bit of fibrin along the vascular spaces, but that feature was not prominent in this case.

Dr. A. O. Severance, San Antonio: Dr. Stout, in the years that have gone by I have come across tumors that I thought were hemangioendotheliomas in which the proliferating cell was within the reticulum sheath, and in which the cells were fairly uniform in size and shape and much smaller than these here, with frequent mitotic figures. I've called those hemangioendotheliomas and thought that they were of the benign type. They occurred commonly in children, but sometimes in adults, and they behaved in a somewhat benign fashion. I wonder if you would take this opportunity to comment on that, whether you think there is a benign type.

Dr. Stout: Indeed I do, and in order to make certain that there shall be no confusion in the clinicians' minds if we use the word "hemangioendothelioma," I always preface it by either "benign" or "malignant" so as to make it perfectly certain that if we make a diagnosis of hemangioendothelioma and it is one of the benign varieties you have described, it will not be mistaken for one of the malignant tumors. I think one of the distinguishing features, certainly, is the character of the cells. In the benign type the cells do not look like anaplastic malignant tumor cells. In the malignant type they do, very definitely.

Gen. Elbert DeCoursey, Fort Sam Houston: How is the reaction to radiation in these tumors, Dr. Stout?

Dr. Stout: I never knew anything to stop the malignant hemangioendothelioma. You may kill off a few cells, but I never knew any case to be cured by any means at all, surgery or irradiation, in these truly malignant hemangioendotheliomas. I think they are terrible and vicious tumors. I do not recall any one of them in which radiotherapy destroyed even part of the tumor, and my impression is that they are radioresistant as well as incurable by radiotherapy.

CASE 3

Diagnosis.—Rhabdomyosarcoma of buccal mucosa.

Contributor.—Capt. R. C. Schaffer, USAF Hospital, Lackland Air Force Base.

History.—A 22 year old white man had a tumor of the left buccal mucosa which was rapidly enlarging. It was incised, and a diagnosis of malignant tumor was made. On trans-shipment to another base the patient suddenly died. Tumor masses were found involving other sites such as pancreas, pleura, lungs, heart, thyroid, liver, and adrenal glands.

Dr. Stout: We made some additional inquiries. The tumor in the cheek was regarded as the primary site. The onset of illness was in April, 1954, and death occurred June 16, 1954, so this again is a rapidly growing tumor. The left submaxillary and submental lymph nodes were said to have been involved grossly at autopsy, but there is no mention of them microscopically. The metastases mentioned were all in organs. I wanted to find out whether there was any lymph node involvement, and that is the reason for that statement.

Submitted Diagnoses.—Rhabdomyosarcoma, 18; reticulum cell sarcoma, 5; fibrosarcoma, 4; hemangioendothelioma, 3; hemangiopericytoma, 2; bronchogenic carcinoma (anaplastic), 2; miscellaneous malignant tumors, 7; "eeny meeny miney mo," 2.

Dr. Stout: It doesn't seem to me that we got as many people making diagnoses in this case, but the majority evidently thought it was a rhabdomyosarcoma; and there is hemangiopericytoma raising its ugly head again. Obviously somebody here thought that it was a metastatic lesion in the cheek. You can interpret that last diagnosis any way you want. How did two people think of that? There must have been collusion there.

This tumor is composed largely of rounded, undifferentiated cells. Scattered among them are varying numbers of extremely long strap cells and occasionally large rounded cells. In the hematoxylin-eosin section the cytoplasm of these last two cell varieties does not differ much from that of the undifferentiated cells, but with Masson's trichrome stain the cytoplasm is a brilliant red while the undifferentiated cells remain a neutral tint. Even though one cannot find cross striations, there are longitudinal fibers and in the large rounded cells a division of the cytoplasm characteristic of embryonal striated muscle cells. No normal striated muscle is identified.

The presence of these long strap cells and the large rounded cells with acidophil cytoplasm is enough to make the diagnosis if one is satisfied that they are tumor cells and not separated remnants of invaded striated muscle. I am satisfied that in this case they are neoplastic and that the tumor belongs to the group of rhabdomyosarcomas. I would like to point out that this is more like a juvenile rhabdomyosarcoma than cases more commonly seen in adults. In

the latter it is seldom possible to find sufficiently differentiated tumors to make them easily recognizable. One often has to depend upon bizarre multinucleated giant cells, some of which have peripherally arranged vacuoles containing glycogen—the spider-web cells. It is much easier to call a tumor a rhabdomyosarcoma in an adult and be in error than is the case with children. I would stress particularly the fact that there is a giant cell carcinoma in the lung which can imitate a rhabdomyosarcoma; and there can occur in the upper respiratory and alimentary tracts projecting growths suggesting rhabdomyosarcoma which may develop either spontaneously or following radiotherapy and often may be associated with intramucosal or infiltrating squamous carcinoma at the base. These giant cell tumors are usually not even neoplasms. I wish I knew some way in which one can surely recognize these pseudo tumors. One simply must know where they are apt to develop and be aware of them so as to avoid wrong diagnoses leading to unnecessary mutilating operations.

When I wrote the fascicle on tumors of the soft tissues and dealt with the subject of rhabdomyosarcoma, I see that I did not devote enough space to the discussion of the difference between juvenile and adult rhabdomyosarcoma, nor to the difficulty of distinguishing the pseudo from the real rhabdomyosarcoma. Let this discussion be a supplement to the fascicle.

There are three varieties of rhabdomyosarcoma in children. The first is represented by the tumor type known as sarcoma botryoides, found most frequently in the pelvic genitourinary tract of males and females and characterized by the formation of grapelike myxoid nodules with stellate rhabdomyoblasts sometimes showing cross striations. There are also small rounded rhabdomyoblasts, sometimes but not always showing strongly acidophil cytoplasm. The second variety of juvenile rhabdomyosarcoma found in the retroperitoneum, the nares, orbit, external canal, and middle ear, and occasionally in muscles elsewhere, is featured especially by the small rounded cell previously described and less often by myxoid areas with stellate cells. Both varieties may show the long strap form and the large rounded forms found in this tumor. The third variety is found especially in the heart. This is characterized by large bizarre rhabdomyoblasts often showing cross striations. Some prefer to call these heart tumors rhabdomyomas, believing that they are congenital malformations and benign. Finally, rhabdomyosarcoma is not infrequently one element in a mesenchymoma or in such a teratomatous growth as Wilms's tumor of the kidney. In the adult, as already pointed out, the juvenile small rounded and stellate rhabdomyoblasts are usually not seen and one has to depend upon bizarre giant cells and spider-web cells. The search for cross striations may be very onerous or fail entirely.

Dr. Béla Halpert, Houston: Were these striations discernible in the hematoxylin-eosin sections that we saw? And does it require special fixing fluid such as absolute alcohol to demonstrate glycogen?

Dr. Stout: If one has the patience to hunt long enough, I think cross striations can be found in the hematoxylin-eosin stains. I think the special stains facilitate finding them, because it makes them more easily apparent; but one can see them if there is a reasonably good hematoxylin-eosin preparation. It's got to be reasonably good, though; otherwise you will not see them.

Can one demonstrate glycogen without special fixation? Well, if you are lucky, you can, even after formalin or Bouin's, and you don't always have to have the special fixative. Of course you will get it much more reliably if you do have the alcohol.

Dr. Halpert: I was asking that question because I had a case of glycogen-storage disease in which the autopsy was performed 60 hours after death. The spaces were there in all the organs, particularly in the muscle, myocardium, the kidneys, and the liver; but I couldn't demonstrate the glycogen, which was gone. The article wasn't accepted for publication by Dr. Hektoen because I couldn't actually demonstrate the glycogen, although I knew it was there.

Dr. Stout: Well, that was high intellectual and scientific integrity on the part of Dr. Hektoen.

CASE 4

Diagnosis.—Fibrosarcoma (?) or mesenchymoma (?) of breast.

Contributor.—Dr. Sylvia Johns, Nix Laboratories, San Antonio.

History.—A 79 year old white woman first noted a lump in her breast one week prior to consulting her doctor. There had been no trauma, no hormone therapy, and no nipple discharge. There was no history of cancer, diabetes, or tuberculosis in the immediate family. The patient had nursed 10 children. At physical examination she appeared well. There was a hard, irregular, 5 cm. tumor in the upper outer quadrant of her right breast. There was a positive plateau test, poor transillumination, and nipple retraction. Chest film was negative for metastasis. The specimen consisted of an unencapsulated fatty mass of incised breast tissue measuring 7 by 6 by 6 cm. with a central tumor measuring 4.5 by 4 by 4 cm. This tumor was circumscribed for approximately one-half of its circumference but no definite capsule was made out. The tumor showed extensive necrosis and cavitation with the periphery soft, moist, and gray-pink with foci of necrosis and hemorrhage. Peripheral to the tumor were multiple dilated ducts with creamy secretion. Excision biopsy with frozen section was followed immediately by simple mastectomy with excision of one axillary node. The patient had a full course of roentgen-ray therapy. She noted recurrent lumps in the region of the scar within one month and died within six months. No autopsy was performed.

Submitted Diagnoses. — Breast carcinoma, 12; fibrosarcoma, 10; liposarcoma, 5; osteogenic sarcoma, 1; hemangio-

pericytoma, 2; carcinosarcoma, 4; cystosarcoma phylloides, 2; miscellaneous malignant tumors (sarcoma; carcinoma), 7.

Dr. Stout: I expected we would get various diagnoses. There it is—[hemangiopericytoma]! Well, keep trying, you might hit it! Cystosarcoma phylloides—Colonel Farinacci, I recommend that your secretary look up the spelling of phyllodes. I should like to know if there is a dictionary that spells it that way.

Col. Charles J. Farinacci, Fort Sam Houston: Dr. Stout, I had this out with my secretary, and she promptly brought out her twenty-second edition of Dorland's "Medical Dictionary," 1951, and showed me that this term, as it is spelled here, is preferred. In parentheses there was the other one without the "i," and I said "Well, I guess I am licked, but it isn't right."

Dr. Stout: Well, for me, that is a wrong spelling.*

This tumor appears to be a sarcoma without any evidence of an epithelial element. It is made up largely of spindle-shaped cells arranged pretty much haphazardly. Only a small portion of the section shows viable cells; the rest of it is necrotic. One can see that there are capillaries coursing in various directions in the viable tumor tissue; elsewhere there are very few capillaries. Trichrome and especially Laidlaw silver reticulin stains show many reticulin and some collagen fibers between and around a majority of the cells. A few groups of amorphous tumor cells have no fibers about them. Mitoses average about one in every three high power fields. The mucicarmine stain shows no intracellular red or pink secretion vacuoles.

We still have a great deal to learn about the malignant noncarcinomatous tumors of the breast. I have made two attempts to set up criteria for naming them and for predicting the result following various types of treatment and have tried to correlate our results with cases reported in the literature. In the case of cystosarcoma phyllodes it is possible to recognize a majority of them, but we have not learned how to predict the result of treatment or the biological behavior if untreated with any assurance at all. When it comes to the sarcomas not developing in adenofibromas of the breast, we have recognized fibrosarcoma, liposarcoma, rhabdomyosarcoma, osteogenic sarcoma, malignant hemangioendothelioma, and malignant mesenchymoma. The record of the microscopic appearance and the results of treatment of our cases can be found in the paper by Lester and Stout. The number of cases is few aside from cystosarcoma phyllodes, and the behavior of the anaplastic tumors following simple mastectomy unpredictable; for this sometimes cured for a long period of years but sometimes metastasis through the blood stream led to rapid death, as in this case. Malignant hemangioendothelioma primary in the breast was an exception, for it was always fatal and in most cases with extreme rapidity. Rhabdomyosarcoma was the only type which metastasized to the lymph nodes in the axilla.

What shall this tumor be called? As in many other cases we are asked to judge from a small fragment of a 5 cm. tumor much of which is necrotic. I am always fearful that sections from some other part of this tumor may show some other kind of differentiation. If they did so, the tumor would be a malignant mesenchymoma. If this small fragment is representative of the entire tumor, I am forced to call it a poorly differentiated fibrosarcoma. The tumor cells are largely surrounded by connective tissue fibers which seemingly they have formed. The fact that small groups of cells are not surrounded by fibers does not invalidate the diagnosis of undifferentiated fibrosarcoma; but in cases of apparent undifferentiated fibrosarcoma one must remember always that some or all of the cells might be of some other type and could have assumed the functions of fibroblasts. Without any proof that this tumor is other than a fibroblastic one, I can see no escape from calling it a malignant fibrosarcoma. The number of mitoses is sufficient to necessitate calling it malignant, although it would not have been possible to have predicted the extremely rapid course.

Dr. Béla Halpert, Houston: I don't recall whether or not I called this a liposarcoma, but I probably did. In liposarcomas at times the connective tissue element looks like a fibrosarcoma, and even the larger part of the tumor may be composed of that element. I would like to comment on neoplasms of nonepithelial origin in the mammary gland. It is strange that this organ which has so much adipose tissue and so much connective tissue in it is so rarely the site of either a pure fibroma or a lipoma. The only fibroma of the mammary gland reported in the last 25 years was seen by me.*

Dr. Stout: Oh, I think that is perfectly true, and it isn't limited to the mammary gland. The whole distribution of lipomas is peculiar, and their behavior is peculiar, too. I think we must have half a dozen lipomas of the mammary gland, and in my observation they occur in two different ways: In one, the lipoma is in the mammary gland, but has no mammary glandular elements in it at all. It is separated from them by a capsule. It may not be a perfectly rounded tumor, but it is separated from all of the mammary elements. In the other, the fat is evidently infiltrating, because the mammary acini or ducts are found scattered through it. That is of interest to us

Stedman's "Dictionary," eighteenth edition, 1953, says the Greek is "phyllodes" meaning "like leaves." Blakiston's "New Gould Medical Dictionary," 1949, gives "phylloides" but does not give the Greek justification for this spelling.

Halpert, B., and Dial, D. L.: Fibroma of Breast, Am. J. Path. 9:905-908 (Nov.) 1933.

pathologists, but as far as I know the fatty tumors in the breast that justify the term lipoma are always benign and, as far as my experience goes, have never given rise to a malignant liposarcoma.*

Dr. Leo Lowbeer, Tulsa, Okla.: Isn't the biological behavior of this particular neoplasm unusual? Would you have predicted after seeing the slides that the patient would die so rapidly? I remember that we had a case of malignant mesenchymoma of the breast which Dr. Stout discussed in a seminar in Tulsa. This tumor had a far wilder morphologic aspect. It had a tremendous number of mitotic figures. It was far more cellular. Yet the patient survived for five years. Nobody would have predicted that. Could you make some comment on this?

Dr. Stout: Yes, I agree that morphology is no sure guide to biological behavior, and the more one encounters tumors in different parts of the body, the more he will become convinced of that. You only have to think of the relatively benign appearance of thyroid carcinomas and their malignant behavior, and the same statement applies to occasional tumors in all parts of the body. One cannot give any kind of a guarantee as to what the behavior of a given tumor will be. All one can say is that the majority of tumors of this or that type have statistically behaved in this or that fashion; but you will always encounter, if you live long enough, an exception to the rule. And I have lived almost long enough to encounter exceptions to all rules.

Dr. D. Useda, San Antonio: I think I read that when a tumor has a fibrosarcoma pattern and you find tumor giant cells, that tumor is not called a fibrosarcoma, but you should think of a liposarcoma or rhabdomyosarcoma. I wish Dr. Stout would make some comments about that.

Dr. Stout: I don't know whether I said that in print, but I certainly agree with that completely. I think the true, simple fibrosarcoma seldom produces any appreciable number of giant cells, so that whenever I see a fibrous tumor that has any considerable number of giant cells in it, I always look about to see if I can't detect some other features which will enable me to put it in its proper class—lipo-, rhabdo-, or even some other kind of sarcoma.

CASE 5

Diagnosis.—Rhabdomyosarcoma (sarcoma botryoides) of the common bile duct.

Contributor.—Col. C. J. Lind, Brooke Army Hospital, Fort Sam Houston.

History.—A 6 year old boy developed dark urine, jaundice, pruritus, and clay colored stools within five days. Nineteen days later, on hospital admission, there was a temperature of 104 F., jaundice, and nontender liver enlargement of two fingerbreadths. White blood cell count was 17,500 with 77 per cent polymorphonuclear leukocytes and 23 per cent lymphocytes. Hemoglobin was 10 Gm., red blood cell count 3,200,000, and sedimentation rate 36. Heterophil, cold and febrile agglutination, Coombs' test, and blood culture studies were negative. A gastrointestinal series showed an extrinsic pressure defect of the second portion of the duodenum. An exploratory laparotomy revealed a 1.8 by 2.7 by 3 cm. tumor mass with peripheral grape-like fragments obstructing the distal portion of the common duct. One section was taken through the main tumor mass.

Follow-Up.—Postoperatively the child's condition deteriorated rapidly, and he died April 17, 1955, approximately nine weeks after initial onset of symptoms. The autopsy findings showed the presence of the original tumor of the common bile duct with extension into the head of the pancreas and wall of the duodenum. In addition there were periductal lymph node metastases.

Submitted Diagnoses. — Sarcoma botryoides of the common bile duct, 17; leiomyosarcoma, 6; rhabdomyosarcoma, 5; fibrosarcoma, 3; liposarcoma, 2; mesenchymoma, 3; neurogenic sarcoma, 1; myxosarcoma, 1; foreign-body granuloma (cotton), 1; miscellaneous diagnoses, 4.

Dr. Stout: I suspect that a number of people probably read *Cancer* and saw Dr. Horn's case published there, while the rest did not. We have a good scattering of diagnoses, practically all except one of them indicating that the diagnostician thought that the tumor was malignant; and we don't know what the miscellaneous diagnoses were.

Now let's have the roentgenograms, and I will ask Col. Henry C. Harrell, MC, radiologist at Brooke Army Hospital, if he will interpret the film.

Colonel Harrell: There is an area of obstruction to the second portion of the duodenum. This was a constant finding and not just a peristaltic wave. The duodenal bulb is also considerably enlarged, and the stomach is fairly large. In order to tell the emptying time of the stomach, of course, additional films would have to be made. This obstruction is extramural. The mucosa inside the duodenum appears to be fairly well intact, and certainly adjacent mucosa is intact. One of the causes of obstruction at this point, of course, is a tumor or tumefaction in the head of the pancreas; but the common bile duct comes right along here, and in this particular case undoubtedly the enlargement of the common bile duct at this point causes this obstruction. It is possible that there could be some invasion of the wall. An intramural tumor could cause this obstruction, but one would expect a little more disturbance of the mucosa lining the duodenum at that point.

Dr. Stout: Thank you, Colonel Harrell.

Where this tumor invades and forms projecting masses in the mucosa of the common duct, it is largely myxoid with the intercellular substance stained pink by mucicarmine and with most of the cells appearing stellate as a rule, but with some areas where

**As of February 6, 1956, there are records of 88 lipomas of the female and 2 of the male mammary gland in the Surgical Pathology Laboratory of Columbia University.*

there are small rounded undifferentiated cells. As soon, however, as one gets away from the polypoid surface formations and into the solid underlying tumor, one finds a new cell form, the long strap-shaped cell, in great numbers. The hematoxylin-eosin preparation shows that the cytoplasm of these cells is acidophil; but a really striking picture is obtained by using Masson's trichrome stain, when it is at once apparent that the cytoplasm is intensely red and one recognizes these cells as strap-shaped rhabdomyoblasts. Cross striations can be found in both stains. They are not very frequent. I think that we can accept this as a definite rhabdomyosarcoma of juvenile type, and of the special type known as sarcoma botryoides.

Recently a case similar to this one was reported by Horn and his associates. Dr. Horn had showed his case to me. Of course I agreed with his diagnosis and was astounded at seeing sarcoma botryoides in the common duct of a child. Horn painstakingly combed the literature when reporting his case and found recorded 2 previous common duct cases which grossly and possibly microscopically imitated this appearance. Neither of them had been recognized as rhabdomyosarcomas by their reporters, but Horn thought that that is what they were. At my request Dr. Horn included his case in the September, 1954, seminar of the Arthur Purdy Stout Club in Washington, D. C., so that it was easy for Colonel Farinacci to diagnose this present case when it came his way. Since Dr. Horn's case Colonel Farinacci has had the good fortune to see 2 cases that reproduced the same picture and were recognized by him as sarcoma botryoides of the common bile duct.

I have spent some time in discussing the histological characteristics of juvenile rhabdomyosarcoma when dealing with case 3. It seems unnecessary to repeat what was said there, but I might enlarge on that by a couple of other remarks. I used to think that sarcoma botryoides sometimes was a pure myxoma, and because in those cases I didn't succeed in finding any cross striations, I didn't think that they were probably definite rhabdomyosarcomas. I have changed my mind now. I believe that all cases of sarcoma botryoides are rhabdomyosarcomas of a peculiar type. Perhaps the fact of projection into a cavity or duct or on the surface of the mucous membrane is responsible for the myxoid appearance, but I believe all those stellate cells are really rhabdomyoblasts although they may not have differentiating features. Whether or not there is such a thing as a pure myxoma of the genital sphere I do not know.

I cannot believe sarcoma botryoides of the common bile duct will ever be a common tumor, and this audience may never see another case. Why juvenile rhabdomyosarcomas develop where they have been found in rather restricted regions of the body is an observed fact which so far has defied interpretation.

Let's ask if anybody has seen a case like this of sarcoma botryoides of the common duct. We will let it go on record that nobody has.

CASE 6

Diagnosis.—Granular cell myoblastoma of anterior neck region.

Contributor.—Dr. A. O. Severance, Baptist Memorial Hospital, San Antonio.

History.—A 17 year old white girl had a six month history of enlargement of what was thought to be the right lobe of the thyroid. At surgery after approximately two-thirds of the right lobe of the thyroid had been removed, a tumor was discovered posteriorly beneath the thyroid. This was shaved from the trachea. The gross specimen was a 7 Gm., smooth, ovoid mass, 3.5 by 2.5 by 1.5 cm. The cut surface showed a homogeneous, firm, yellowish white tissue with a fibrillar structure.

Follow-Up.—When the patient was seen approximately 11 months after surgery, she was well and there was no recurrence.

Dr. Stout: I might remark that when this history came to me it said that the tumor lay below the thyroid. Well, "below" unfortunately might be interpreted differently whether the patient was lying down on her back or whether she was standing, because in one position it would be posterior to it, and in the other position it would be inferior, or caudad to it. I learned from Dr. Severance that this one was posterior to the thyroid. The nodule was adjacent to the trachea, more on the right side, and adherent to it.

Submitted Diagnoses.—Granular cell myoblastoma, 33; parathyroid adenoma, 3; hibernoma, 1; Hürthle cell carcinoma, 1; nonchromaffin paraganglioma, 2; alveolar soft part sarcoma, 1; rhabdomyoma, 2.

Dr. Stout: As I expected, almost everybody said that it was a granular cell myoblastoma. We've got a little scattering of differences of opinion; and the diagnosis of alveolar soft part sarcoma would be a synonym for malignant granular cell myoblastoma. The same remark applies to nonchromaffin paraganglioma, so that three people believed that this was a malignant tumor, and the majority, I take it, did not.

This tumor is made up of cords of plump, elongated, and sometimes almost rounded cells of relatively large size with small rounded nuclei and a voluminous cytoplasm filled with fine, moderately acidophil granules. The Laidlaw reticulin stain shows that the cords of cells do not have reticulin fibers between them, but one cord is separated from its neighbor by a dense tangle of fine delicate reticulin fibers. Intermingled with the tumor cords are widely separated striated muscle fibers. No nerve twigs are detected in these slides.

Obviously this is a granular cell myoblastoma of

the ordinary type which has no suggestion of malignancy. That this variety can become malignant I can testify, for I have seen 5 cases in which the primary tumor showed no recognizable evidence of malignancy, except perhaps that some of the nuclei were a little larger, but which nevertheless metastasized. When I prepared the discussion of benign granular cell myoblastoma for the fascicle on tumors of the soft tissues, there were 120 cases recorded in our laboratory. This was not including the malignant variants of which we had 4 of the simple kind and 12 of the organoid granular cell myoblastomas. Four years later as of September 1, 1955, 60 benign cases have been added, making a total of 180. In this later group of 60 cases the tongue still leads all other sites, with 8 cases. The situation of this present case is unique so far as I am concerned. We have none either in or near the thyroid gland and only 1 case in the neck at all. It was apparently subcutaneous in the lateral neck.

There is nothing new to report concerning the cellular origin of the granular cell myoblastoma. At least one set of these tumors apparently does not arise from myoblasts; these are the pedunculated tumors attached to the gums of newborn infants. The cells composing them look just like the granular cell myoblast except perhaps they are more apt to be rounded. However, since cells of this type can appear occasionally in adamantinomas I am content to believe that growths on the gums of newborn infants are probably malformation tumors of the embryonal enamel organ. As for the malignant organoid myoblastomas, I am still waiting for proof that they are derived from nonchromaffin paraganglions, because of Murray's observations in tissue culture which showed no difference in cellular growth pattern in vitro between ordinary and organoid granular cell myoblastoma. I keep an open mind, but I see no reason to change the name without convincing evidence.

Dr. Leo Lowbeer, Tulsa, Okla.: Could you, Dr. Stout, comment on the validity of the argument that these tumors could not originate from striated muscle cells since they are so frequently found in locations where there are no striated muscles? We have seen a tumor of this sort in the bronchus, where there was some reason to assume that the tumor may have originated from smooth muscle cells.

Dr. Stout: I can't make any intelligent comment on that except to say that tumors that we will all accept as rhabdomyosarcomas because they develop with cross striations and other features can appear in parts of the body where there are no known rhabdomyoblasts; so that isn't, to me, a bar to their being rhabdomyoblasts. I don't say that they are; I don't say that they are not.

Dr. J. L. Goforth, Dallas: Isn't it rather confusing, Dr. Stout, to refer to a benign-behaving tumor as a myoblastic tumor?

Dr. Stout: To me, using the suffix "blast" simply means that the lesion is reproducing in its growth an embryonal type of cell; that embryonal type of cell doesn't necessarily connote malignancy. The rhabdomyomas of the heart, for example, are not in any sense of the word made up of adult types of heart muscle cells. They are composed of bizarre, embryonal type of heart muscle cells distended with glycogen, yet they are nonmetastasizing tumors. In the case of these granular cell tumors I put the word "malignant" in front of granular cell myoblastoma to indicate its special potentials. This applies especially to the organoid granular cell myoblastomas, which are generally recognized as very malignant tumors.

CASE 7

Diagnosis.—Reticulum cell sarcoma (?) of forearm.

Contributor.—Dr. A. O. Severance, Baptist Memorial Hospital, San Antonio.

History.—A 23 year old man of Mexican descent injured his right forearm in November, 1954, and the area became swollen. This was thought to be a hematoma and was treated conservatively for about one month. Three days following a biopsy of the lesion the arm was amputated in the upper third. Gross examination revealed a yellowish-red, hard, lobulated tumor, 10 by 3 by 3 cm. This was separating and invading the flexor group of muscles in the forearm. The joints were not involved but the tumor was present about the periosteum of both forearm bones. A roentgenogram of the arm revealed no bone involvement.

Follow-Up.—Three weeks later a metastatic nodule was removed from the posterior cervical region. Postoperatively, roentgenograms of the chest were negative for metastasis on four occasions, the last film being made in April, 1955. The patient had left pleural effusion and died in May, 1955. No autopsy was performed.

Submitted Diagnoses.—Synovial sarcoma (malignant synovioma), 17; reticulum cell sarcoma, 8; rhabdomyosarcoma, 6; neuroblastoma, 4; neurofibrosarcoma, 2; sarcoma, unclassified, 2; Ewing's sarcoma, 1; "also ran," 3.

Dr. Stout: There comes synovial sarcoma, a favorite diagnosis, particularly when one doesn't know what else to call it. Then we have reticulum cell sarcoma, rhabdomyosarcoma, neuroblastoma, neurofibrosarcoma, sarcoma, Ewing's sarcoma, and three unnamed diagnoses. So the favorite diagnosis here is synovial sarcoma. We have next to show a roentgenogram of the forearm, and I'll ask Colonel Harrell again to interpret it.

Col. Henry C. Harrell, Fort Sam Houston: The reproduction here is quite accurate and there is no pathology that I can demonstrate either in the periosteum or the cortex of the bone. Bones and joints in both of these projections as nearly as I can tell are normal. The reproduction of the slide precludes study of the soft tissues.

Dr. Stout: So you wouldn't want to say whether

or not there was any tumor in the soft tissues, from this particular reproduction?

Colonel Harrell: No, sir. From the reproductions I can't see the soft tissues well enough, but I believe that the bones are normal.

Dr. Stout: This is a tumor composed of cords of moderately large rounded cells. The cytoplasm is not voluminous and seems irregularly vacuolated as if in degeneration. Mitoses are infrequent. With the Laidlaw silver reticulin stain there seem to be exceedingly few reticulin fibers intermingled with the cells. There is no evidence of secretional activity and no metaplastic activity. The tumor cells do not secrete mucin or hyaluronic acid and there is no evidence of epidermoid differentiation.

The interpretation of this tumor is not easy, and I do not think we can be absolutely certain of its nature since the patient has died and no autopsy was done. We have to decide whether the tumor is primary here in the soft tissue, whether it arose in bone and extended into soft tissues, or whether it was metastatic from a distance to the forearm. There is one tumor which could do this without making manifest its primary site. That is the seminoma of the testis. It would be unusual for a seminoma to behave in this fashion, but it is possible. The rounded cells of moderate size apparently without reticulin formation by the cells and growing in cords is not incompatible with seminoma. Further, a tumor of the testis may remain occult and still metastasize. If it is primary in the forearm it might have been a reticulum cell sarcoma of the bone marrow manifesting itself chiefly in the soft tissues; but the arm was amputated, so that the bones were probably investigated and no tumor found in either radius or ulna. No doubt some will want to consider the possibility of synovial sarcoma. The seminar tumor does not show the dual cellular composition of the synovial sarcoma so that I cannot agree to that diagnosis. This leaves us with reticulum cell sarcoma of the soft tissues for consideration. I would be willing to accept that as the most probable diagnosis were it not for the fact that there are practically no reticulin fibers among the tumor cells. I do not think this is enough to invalidate the diagnosis entirely, but I cannot make it with complete assurance.

I have not made any progress in determining the exact cellular nature of tumors of this sort. You will find a similar case in the proceedings of the seminar on tumors of the soft tissues of the American Society of Clinical Pathologists. I still think this is a distinct entity which can be primary in the soft tissues. I imagine some of the cases I have called by this name were metastatic and I was in error, but not all of them. After all, if everyone accepts the reticulum cell sarcoma of bone marrow, why should there not be one primary in the soft tissues, perhaps derived from histiocytes?

Perhaps it will be in order to elaborate the question of the necessity of demonstrating reticulin in a tumor before accepting it as a reticulum cell sarcoma. I don't believe that that is an absolutely necessary factor in the diagnosis. Let us take the question of Ewing tumor and reticulum cell sarcoma of bone. Ewing tumor does not make any reticulin fibers at all. Reticulum cell sarcoma, so-called, almost always does. Then what is a Ewing tumor? What cells does it come from? I got interested in that some years ago, and I tried writing around to various authorities, including Dr. Ewing, to find out what kind of a cell they thought the Ewing tumor cell was, and what it came from. There were two schools of thought at that time, and I suppose there still are. One was that the Ewing tumor comes from some undifferentiated cell of the bone marrow. Dr. Ewing thought that it was what he called a tumor of endothelial cells that form on the outer surface of capillaries. I tried hard to find out what that meant, and I never succeeded in getting Dr. Ewing to tell me exactly what he meant by perivascular endothelium; but at any rate he did not think that the Ewing tumor was derived from a cell similar to the cells of the reticuloendothelial system. On the other hand Oberling and several other people believed that the Ewing tumor cell was a derivative of a reticuloblast in an earlier phase of differentiation before it developed the ability to form reticulin fibers, so he believed that Ewing tumor and reticulum cell sarcoma of bone were simply different phases of derivatives of reticuloblasts. In the Ewing tumor the reproduction was in a very early phase and in the reticulum cell sarcoma the cell was further along in the differential series. If you accept Oberling's ideas, it is possible for what is called a reticulum cell sarcoma to fail to form any reticulin fibers; and I must say, in studying tumors that imitate the appearance, let us say, of reticulum cell sarcoma but which fail to form fibers, I can best explain them to myself by considering them all derivatives of reticuloblasts. So that I could accept this as a reticulum cell sarcoma of soft tissues. It is rather astonishing to me that so little has been written about reticulum cell sarcoma of soft tissues, and so much written about reticulum cell sarcoma of bone. After all, the soft tissues are really just as important as the bone, but nobody seems to take much interest in them.

Now in regard to the diagnosis of synovial sarcoma: I cannot persuade myself to make that diagnosis unless I see a tumor of dual nature, in which there are groups of cells resembling fibroblasts separating cells that resemble synovial cells either by forming glandlike spaces or slits, or by growing in solid cords, but without any reticulin fibers. In this tumor I can't see anything that I would be willing to pick out as a fibrosarcoma-like element. There is a

lot of reticulin, of course, but it all seemed to me to be simply part of the supportive framework of the tumor, so I am not willing to accept this tumor as a synovial sarcoma. I might say that I think it is a great pity that the term "synovioma" is also applied to tumors that could better be classified as villonodular synovitis, or giant cell tumors of tendon sheaths or joints, because to me they are completely different types of tumors. The true synovial sarcoma, strangely enough, develops in the tissues outside of the tendon sheath or joint, and if the tendon sheath, joint, or bursa is involved, it is by secondary invasive growth and not by primary involvement, in my experience; whereas of course the villonodular synovitis or giant cell tumor of the tendon sheath or joint usually develops right in the joint capsule or tendon sheath. It simply puts a lot of generally benign tumors in the same category as the very malignant synovial sarcomas, and I think that is too bad.

Dr. Leo Lowbeer, Tulsa, Okla.: Dr. Stout, since you mentioned in connection with reticulum cell sarcoma, Ewing's sarcoma, would you consider in this case the possibility of a metastatic sympathicoblastoma since in all cases of diagnosed Ewing sarcoma one should really suspect the possibility of a sympathicoblastoma primary in the adrenal gland?

Dr. Stout: Well, this patient is 23. The number of cases of metastatic sympathicoblastoma in adults, although a little more frequent than we used to believe, is still extraordinarily rare. I could see nothing in this which would guide me toward suggesting that diagnosis, because if you don't get some kind of differentiation like a genuine pseudorosette, I don't think that you could reasonably entertain the diagnosis. Moreover, I think these cells are too large to be probable candidates as sympathicoblasts.

Dr. Béla Halpert, Houston: Is it necessary, Dr. Stout, always to try to hitch any undifferentiated neoplasm to something known that is differentiated? Why couldn't we stop and say this is a mesenchymal cell tumor, undifferentiated? It didn't go far enough to show its character; consequently we can't classify it any further. I don't think it is good practice to call it a reticulum cell sarcoma when it doesn't make any reticulin.

Dr. Stout: I'll tell you why I try to do it. If you throw the gates open to the use of the term "undifferentiated sarcoma," you are going to have a hodge-podge of tumors put into that class, and it will never be possible to find out anything in regard to biological behavior from a hodge-podge of different kinds of tumors. The way I get around making a sure diagnosis on a questionable case is by making the diagnosis with a point of interrogation after it, because that indicates that I am not sure in my mind that the diagnosis is correct, but that I think that it might belong to the class named. I have done that now in a number of instances, and I am hoping to get all the cases of that nature together and analyze them to see what proof or disproof I can get toward this business of the reticulum cell sarcoma without reticulin formation. I don't know whether I will ever live long enough to find out, but I will try.

CASE 8

Diagnosis.—Reticulum cell sarcoma (?) of ileum with metastases to adrenals and left testis.

Contributor.—Dr. L. J. Manhoff, Jr., Robert B. Green Hospital, San Antonio.

History.—A 47 year old Latin-American man was admitted to the hospital one week before death with weight loss and fever of six weeks' duration. Numerous diagnostic studies were noncontributory. The patient suddenly developed an acute abdominal condition, and exploratory surgery revealed a large perforated ulcer of the ileum, which was resected. The gross specimen revealed an irregular perforation approximately 2 cm. in diameter which was in the center of a large, irregular ulcer measuring 4 by 5 cm. The patient died the following day of peritonitis. At autopsy large tumors were found replacing each adrenal gland, each measuring 10 cm. in diameter, encapsulated but adherent to surrounding structures. The masses were soft and on section were reddish brown with yellowish areas of necrosis. The left testicle was only slightly enlarged but was replaced entirely by similar tumor. There was no involvement of lymph nodes or any other organs. The slide includes a section of the ileum and adrenals. The testicle appeared similar histologically to the adrenal.

Submitted Diagnoses. — Lymphosarcoma (reticulum cell type), 15; lymphosarcoma (lymphocytic cell), 2; malignant lymphoma (unclassified), 2; seminoma, 8; embryonal carcinoma, testis, 6; sympathicoblastoma, 3; Hodgkin's sarcoma, 1; miscellaneous malignant lesions, 6.

Dr. Stout: The diagnoses lie largely between lymphosarcoma and a testicular tumor, as was to be expected.

Sections of the ileum show that the entire thickness of the wall is infiltrated by tumor cells which vary considerably in kind. Some are plasma cells, and multinuclear forms are present. Others which show mitoses are larger and a good deal more like reticulum tumor cells. A Masson trichrome stain shows many fine reticulin fibers scattered among the tumor cells. A mucicarmine stain shows no intracellular mucin in tumor cells. The gut wall is largely destroyed. The greatest concentration of tumor cells is toward the lumen, where there is superficial erosion of the tumor. The second slide, I presume, was taken at autopsy from one of the adrenals. Now the tumor no longer shows plasma cells and the growth is composed largely of rather small reticulum-like cells. Trichrome and Laidlaw silver reticulin stains show a framework of fibers which forms a meshwork with the tumor cells set among the reticulin fibers of the mesh.

When I first glanced at this case and learned that at autopsy tumor involvement of the left testis had been found, I assumed that the growth was a seminoma with unusual metastases. But after studying the case more carefully I have come to the conclusion that this was not so, but that the primary tumor was a malignant lymphoma of the ileum. There are sound reasons for this. In the first place the greatest ileal involvement is on the mucosal side, which favors a primary mucosal origin. In the second place the tumor cells are much more like reticulum tumor cells and the associated plasma and undifferentiated cells belong more to the lymphoma group than they do to any other group, including seminoma. Perhaps the most convincing supporting evidence is the reticulin meshwork in the interstices of which the tumor cells are found. Seminoma cells do not form any reticulin meshwork, but reticulum cell sarcoma can do so.

If I am correct in supposing this is a reticulum cell sarcoma primary in the ileum, its behavior has been very curious. The absence of any lymph node involvement at all is remarkable, and just as remarkable is the bilateral adrenal involvement and the focus in the testis. The cases which Marcuse and I studied had either regional node involvement or generalization or both. However, the longer you live the more peculiar and unexpected will seem the behavior and appearance of tumors.

CASE 9

Diagnosis.—Dysgerminoma of ovary.

Contributor.—Dr. A. O. Severance, Baptist Memorial Hospital, San Antonio.

History.—A 6 year old girl had a mass in the pelvis. At operation on November 2, 1953, the surgeon believed that the ovary was the primary site of the tumor because of its size. There was no involvement of the uterus, peritoneum, or intestine, but clinically the retroperitoneal nodes at the root of the mesentery and along the aorta were enlarged and thought to be involved. The gross specimen consisted of a tube and ovary that weighed 295 Gm. A fallopian tube 2 cm. in diameter was identified on one surface of the ovary. The mass measured 10 by 8 by 8 cm. and was smooth but lobulated externally. A light yellowish-gray, firm, moist tissue bulged from the cut surface. The patient had deep roentgen-ray therapy and died at home on January 13, 1954. No autopsy was performed.

Submitted Diagnoses.—Dysgerminoma, 21; lymphosarcoma, 7; round cell sarcoma, 3; granulosa cell tumor, 2; granulosa cell carcinoma, 5; malignant serous cystoma, 1; miscellaneous carcinoma, 3; lymphoma with possible dysgerminoma, 1.

Dr. Stout: The majority of you thought it was a dysgerminoma, some voting for lymphosarcoma. Oh, oh! Round cell sarcoma! I wish I could get hold of those people and ask them what they meant by round cell sarcoma—whether that is simply an escape diagnosis so they don't have to make a guess as to what it is, or what. Granulosa cell carcinoma and a malignant serous cystoma—well, that connotes that the growth was partly cystic, or formed cystic structures. I certainly didn't see any of those. Lymphoma with possible dysgerminoma — that also puzzles me. I don't know whether he means that his first guess is lymphoma and his second guess is dysgerminoma, or whether this is a lymphoma and a dysgerminoma. However, certainly dysgerminoma is the tumor diagnosis of the majority.

My first set of slides comes from the ovary. This is largely replaced by a tumor which is very cellular and is composed of rounded cells about twice the size of small lymphocytes, which grow in short slender cords. Reticulin fibers separate the tumor cords, but there are no reticulin fibers between the actual tumor cells. Mitoses are present and tumor cells are found in a large vein. There is no evidence of glandular or epidermoid differentiation and no evidence of cellular secretion. A second section shows the uterine tube entirely enveloped and engulfed by tumor cells. The lumen is maintained, but all of the villous mucosal projections are replaced by tumor cells. Here the tumor has a somewhat different aspect than in the ovarian section. The cells are in solid masses instead of cords, and scattered at intervals among them are solitary normal appearing reticulum cells.

If one had only to look at the section made from the ovary, I would be willing to accept this tumor as a dysgerminoma. It had developed in the ovary of a child; it is made up of cords of what might be considered as undifferentiated male sex cells comparable to the seminoma of the testis and incapable of secreting any hormones; and it has behaved like a malignant tumor. But when we inspect the section of tube invaded by tumor, it is different. It no longer grows in cords but in solid sheets; the cells appear smaller; and there are scattered through it a normal reticulum as if this were a lymphosarcoma. In this case we have more evidence in favor of a dysgerminoma, but it is disturbing to have it imitate a lymphosarcoma. One wonders after seeing cases 8 and 9 how it is ever going to be possible to be entirely confident about the diagnosis.

The fact that this patient was less than 10 years of age is disturbing, for one can find in the literature articles which deny that dysgerminoma occurs in the first decade of life. However, this apparently is not true, for Mueller and his associates in an analysis of 427 cases found that 28 girls or 6.89 per cent were less than 11 years of age. The youngest girl was 2 years, and 6 girls were 5 years of age or younger. It is, however, extraordinary to find one as young as this.

I presume we are justified in considering this a case of dysgerminoma, but I am not at all happy about the histological picture.

Dr. Béla Halpert, Houston: You are using the two

terms "seminoma" and "dysgerminoma" interchangeably, or did I misunderstand?

Dr. Stout: The application of the term "dysgerminoma," as I understand it, is made to tumors of the ovary that are composed of immature male-type sex cells that are comparable to seminoma cells in the testis. There are people like Dr. G. Teilum and others who consider the gonads as a whole group together and discuss all the tumors that can occur in the gonads in a single group. Do you think that they are different tumors?

Dr. Halpert: Yes, I do. A dysgerminoma similar to the one arising in the ovary may occur in the testicle. A seminoma has a definite morphologic pattern with streaks of lymphocytes within the stroma, and extensive areas of hemorrhage. None of these characteristics can be seen here.

Dr. Stout: Well, you would call this a dysgerminoma.

Dr. Halpert: Yes.

Dr. F. P. Bornstein, El Paso: I would like to comment on the nomenclature for a moment. When Robert Meyer* first described the tumor he called it "disgerminoma" and spelled it with an "i" apparently to emphasize the dual nature of this tumor. I don't know where the "y" got into this tumor in the first place.

Dr. Stout: Well, that just shows you how terminology gets garbled. I never read Robert Meyer's original article. I didn't know that at all. I'm glad you called our attention to it.

CASE 10

Diagnosis.—Arrhenoblastoma of ovary.

Contributor.—Dr. H. J. Schattenberg Clinical Laboratory, San Antonio.

History.—A 16 year old patient was a well developed young girl who presented marked hirsutism with a deep male voice. A fairly prominent beard was present. There was complete atrophy of the breasts. The clitoris was enlarged to almost the proportions of a small penis. The gross specimen consisted of a tumor measuring 14 by 22 cm. which was removed from the left ovary. On sectioning, this structure was seen to be cystic. The cysts were multilocular and filled with a straw colored fluid. Crowded to one side of the cyst ovarian structure was noted. Within this ovarian structure a lighter appearing mass was seen which could be identified as tumor tissue. This measured 8 by 10 mm.

Submitted Diagnoses.—Arrhenoblastoma, 38; granulosa cell tumor, 1; androblastoma tubulare lipoides, 1; Pick's tumor, 1; adenoma tubulare testiculare ovarii, 1; gynandroblastoma, 1.

Dr. Stout: One would guess that the diagnosis would be arrhenoblastoma, from the clinical features, and I am happy to see that one person thought it was androblastoma tubulare lipoides. This is simply a nonmalignant form of arrhenoblastoma. This (adenoma tubulare testiculare ovarii) is a tumor I don't know—certainly a nice name. A tubular adenoma, testicular type, of the ovary, I suppose that means. Then we have the gynandroblastoma; but certainly arrhenoblastoma is the popular diagnosis.

This tumor has a striking histological aspect. It is composed largely of cuboidal to columnar cells arranged in rather slender twisted cords. When the cells are columnar, they have the long axis of the cell at right angles to the long axis of the cord. In a few places only do the columnar cells have vacuoles which may have been filled with lipids. In one place the cell cords tend to lose their identity in a mass of spindle-shaped cells set close together as in a theca cell tumor. No interstitial cells are recognized. The cell cords are set in a fairly dense fibrous stroma.

Obviously this tumor was a masculinizing one. If one follows Teilum's classification, the ovarian tumors which contain male sex cells are called androblastomas. There is one which is composed of Sertoli cells and is called by Teilum androblastoma folliculare lipoides and by others folliculome lipidique. This secretes estrogen. It looks something like this tumor histologically, but all of the cylindrical cells are filled with lipids. Those tumors which secrete androgen and are masculinizing include arrhenoblastoma and the tumor which is variously called ovarian Leidig cell tumor, ovarian adrenal tumor, luteoma, and masculinovoblastoma. Here we get into all kinds of trouble, for we find that not only can Leidig cells sometimes contain lipids and grow in cords as here but they also can appear in more solid masses associated with spindle-shaped cells which, says Teilum, is more characteristic of the so-called adrenal rest tumor or luteoma of the ovary. A focus of this sort is present in this tumor. Not being intimately acquainted with the various stages of male gonadogenesis, I feel rather lost among the Leidig and Sertoli cells when they appear in the embryonal state. Adult interstitial cells I can recognize. Unfortunately they appear very seldom in the arrhenoblastomas. The androblastoma tubulare lipoides or Sertoli cell tumor of the ovary I can recognize when it is in a pure form. As far as I can tell in this tumor under discussion there may be both Sertoli and Leidig cells. Obviously the embryonal Leidig cells must predominate, for the evidence of masculinization is clear. Langley admits that there is a form of arrhenoblastoma in which are found both Leidig and Sertoli cells. I will therefore call this tumor an arrhenoblastoma of mixed type of the ovary.

I always have a terrible time with ovarian tumors of this sort, trying to sort out the various kinds of

*Meyer, R.: *Pathology of Some Special Ovarian Tumors and Their Relation to Sex Characteristics, Am. J. Obst. & Gynec. 22:697-713 (Nov.) 1931.*

cells of which they are composed. I am sure I haven't seen enough of them to have any clear conception of their distinguishing features. It seems to me that every one I come across has some new quirk in it that I never saw before, but I am willing to believe that this one is a tumor which can properly be called an arrhenoblastoma, as the majority of you have done. I have been interested in the reaction of people to Teilum's papers. I thought they were very helpful in sorting out these tumors. Other people have told me they thought they just made the confusion worse. I don't see how the confusion could have been made worse.

Dr. Béla Halpert, Houston: It seems to me that a Leidig cell tumor with active secretion has to have some evidence of secretion in the cytoplasm. In the cytoplasm of normal Leidig cells one sees crystalline, golden yellow, granular substance. A Leidig cell tumor, if it is to be identified by its product, should also have crystals in the cytoplasm of some of its cells. Sertoli cells are inside the seminiferous tubules, and are the supporting cells of the spermia, or are their precursors. I don't know whether their cytoplasm has any particular pattern. The nuclei are elongated, and there is hardly any cytoplasm there. A tumor composed of Sertoli cells would have the appearance of Sertoli cells in an atrophied testis with no spermatogonia present. The Sertoli cells are columnar cells with light cytoplasm and basally placed nuclei. The cells in this tumor resemble such Sertoli cells in some areas, being columnar, and having a nonstaining cytoplasm.

Dr. Stout: The only trouble is that arrhenoblastoma is an easy word to say when one is dealing with a masculinizing tumor of the ovary, but the histology of the different ovarian tumors that masculinize is so vastly varied and different that it is only a vague generic term in my experience.

CASE 11

Diagnosis.—Virilizing adrenal cortical adenoma.

Contributor.—Dr. F. C. Coleman, Santa Rosa Hospital, San Antonio.

History.—A 6½ year old white girl had been noted at the age of 2 to have an enlarged clitoris. It continued to grow, pubic hair began to develop, and the child had a masculine distribution of musculature. Physical examination showed wide shoulders and narrow hips, muscular thighs, axillary and pubic hair, and masculine voice. The laboratory found an excretion of 1,500 mg. of 17-ketosteroids in 24 hours. The patient was operated upon.

Submitted Diagnoses.—Adrenal cortical adenoma, 19; adrenal cortical carcinoma, 12; adrenal adenoma or carcinoma (take your choice), 4; ovarian hilar cell carcinoma, 2; adrenal rest tumor, 1; virilizing lipoid tumor, ovary, 2; arrhenoblastoma, ovary, 1; masculinovoblastoma (adrenal adenoma), 1; adrenal cortical hyperplasia, 1.

Dr. Stout: The first two are pretty confident that it was a cortical adrenal tumor, although there is a division of opinion as to whether benign or malignant. Then there is a halting opinion that it might be an adrenal tumor; then we come along to the idea of an ovarian tumor. I suspect these people didn't realize that the tumor that was removed was really an adrenal tumor. They weren't sure whether they were dealing with an ovarian or an adrenal tumor. That applies to all those who suspected the ovary instead of the adrenal. Well, I think this person will change his mind about the word hyperplasia when he sees the picture of the tumor. If it is hyperplasia, it is the biggest and noblest hyperplasia I ever saw.

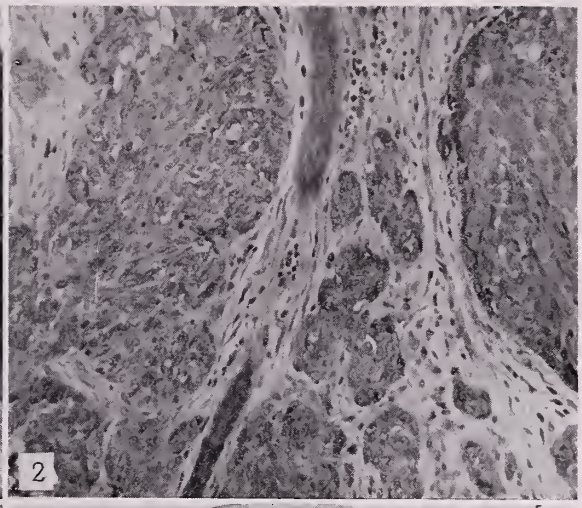
This tumor obviously reproduces accurately some of the layers of the adrenal cortex. A few giant cells with multiple nuclei are present. Most of the cells are well preserved, with granular cytoplasms. A few have vacuolated cytoplasms, and an occasional degeneration form is found. Secretory granules in some cells such as those described by Broster and Vines, and by Weber and Menten as evidence of virilization activity seem to be present in some cells. No mitoses are seen.

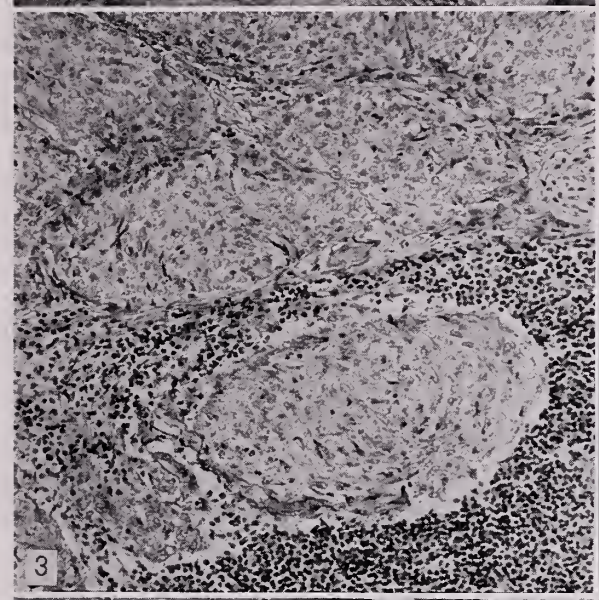
I have learned that this is an adrenal tumor. Certainly it has the characteristics of an adrenal adenoma so that I am not surprised. The question that must be asked is whether or not the secretory granules of Broster and Vines can be regarded as proof of virilization activity. I do not have any personal information on this subject, but if one is to judge from Karsner's statements, these cells can be found in normal adrenals and adenomas without any feminizing or virilizing activity. It seems that they are without diagnostic merit. Apparently it is not possible to tell by histological criteria alone whether or not an adrenal cortical tumor is producing sex hormones. There can be no doubt in this case that this adrenal adenoma was producing large quantities of 17-ketosteroids.

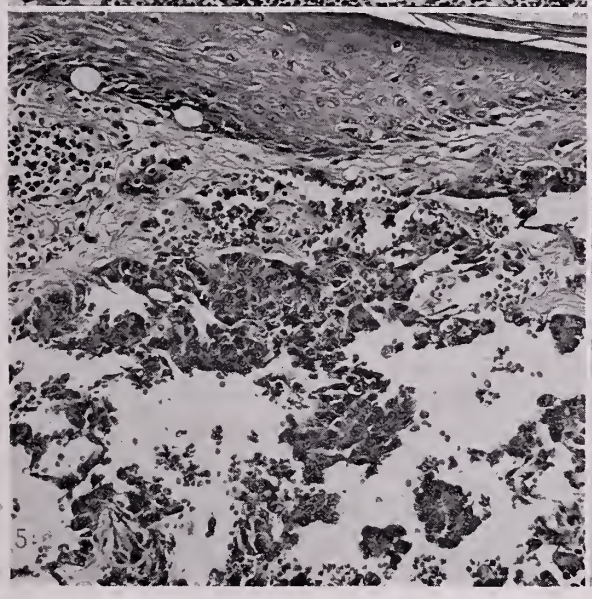
We want to know whether this is a benign or a malignant tumor—whether it should be called an adenoma or carcinoma. I do not know of any sure way of telling that. These cells are pretty well differentiated, and I think it is the general consensus of those who have written about these adrenal cortical tumors that unless you have marked evidence of active invasive growth, or malignant cell appearance, one cannot tell a benign from a malignant adrenal cortical tumor. We have no evidence in this case that the tumor is malignant, so I would favor the diagnosis of a virilizing adrenal cortical adenoma, realizing that I could be mistaken on the adenoma part.

Does anybody have any thoughts on that?

Dr. Béla Halpert, Houston: I agree with Dr. Stout on the nomenclature of this tumor. I feel a little bit safer in regarding it as a benign growth because first of all it has an excessive secretory product. Second, it isn't invasive, but rather well encapsulated, and the







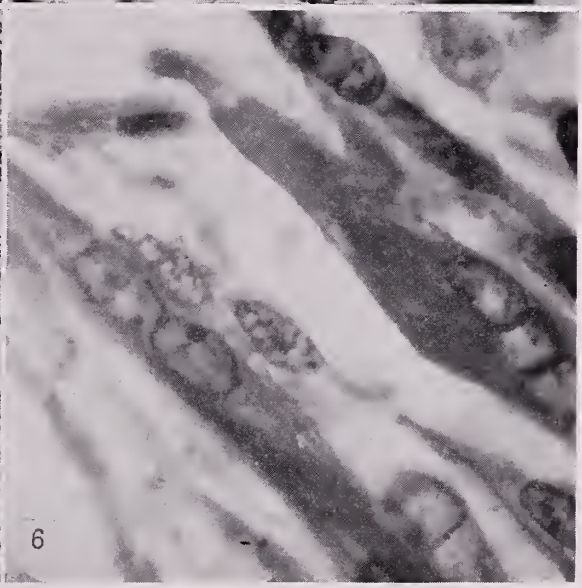


Fig. 1. Case 1. Carcinama of scalp. Photograph before primary treatment.

Fig. 2. Case 1. Appearance of tumor invading corium. The central tube is a sweat gland duct.

Fig. 3. Case 1. Metastasis in cervical lymph node.

Fig. 4. Case 2. Appearance of tumor before resection.

Fig. 5. Case 2. Photomicrograph of tumor in skin. Anastomosing capillary vessels with intraluminal proliferation af tumor cells.

Fig. 6. Case 3. High power photomicrograph to show strap shaped rhabdomyoblasts with longitudinal intracellular myofibrils.

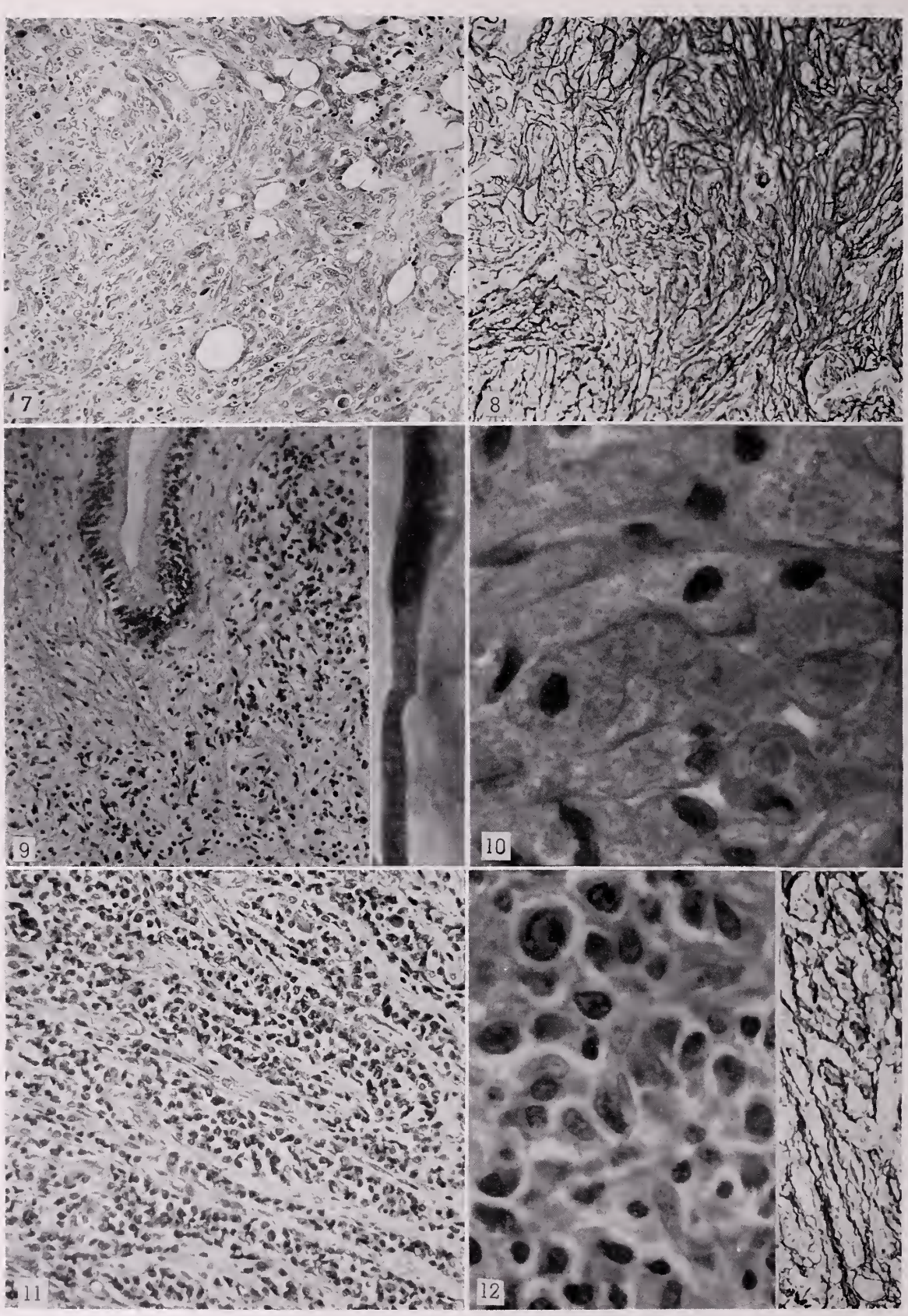


Fig. 7. Case 4. Photomicrograph of tumor invading adipose tissue of the mammary gland.

Fig. 8. Case 4. Laidlaw silver reticulin stain showing fibers surrounding almost every cell. From a more vascular area of the tumor.

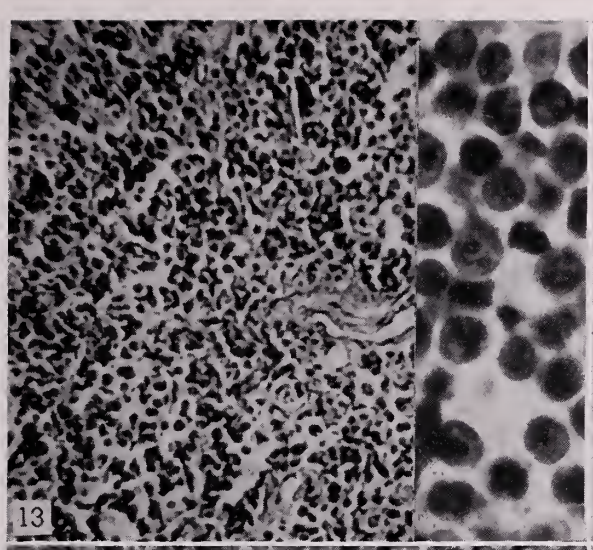
Fig. 9. Case 5. Left. Photomicrograph from the myxoid portion of the tumor in the mucosa.

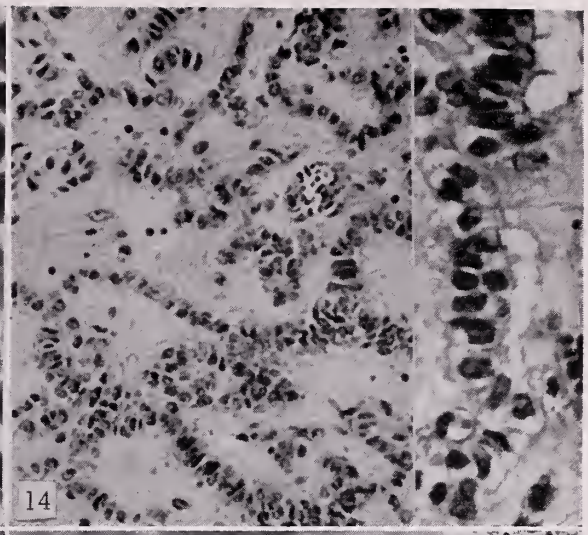
Right. High magnification of a strap cell showing cross striations.

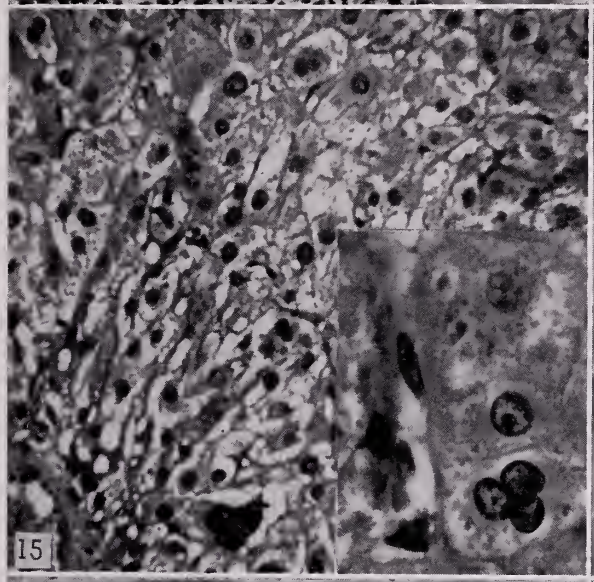
Fig. 10. Case 6. Highly magnified tumor cells showing granules.

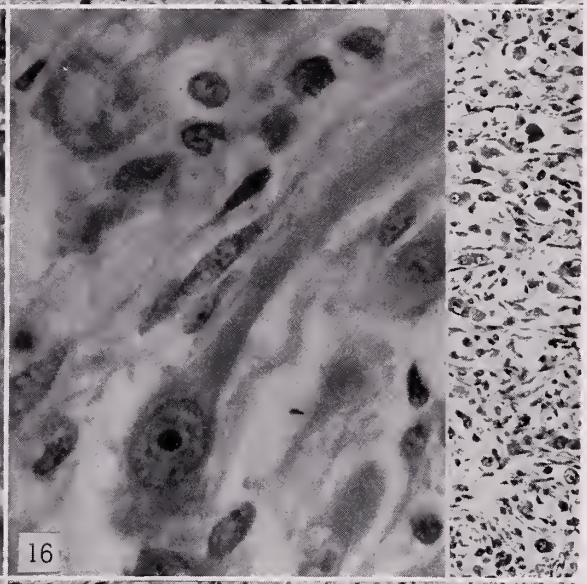
Fig. 11. Case 7. Invasion of fibrous tissues by strands of tumor cells.

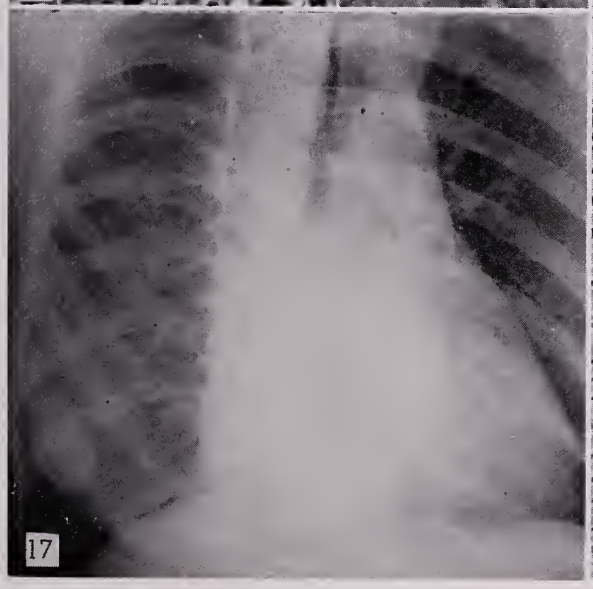
Fig. 12. Case 8. Left. High magnification showing tumor cells. Right. Silver reticulin stain showing reticulin meshwork.











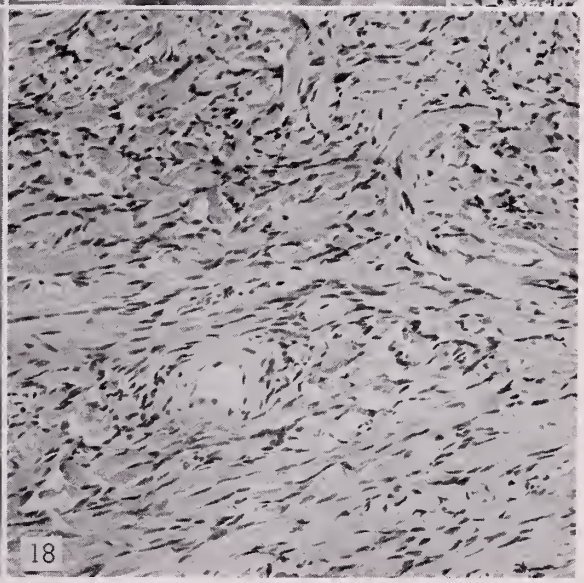


Fig. 13. Case 9. Left. grouping of the tumar cells.
Right. High mognification af individual cells.

Fig. 14. Case 10. Left. Cards af embryanol sex cells which da not have lipid containing granules (Leidig cells?).
Right. Cords of cells with cytaplasmic vacuoles (Sertoli cells?).

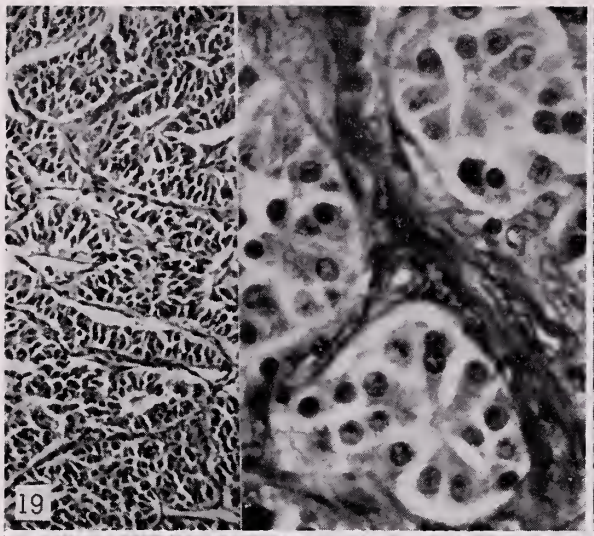
Fig. 15. Case 11. Tumor cells resembling caricatures af the adrenal corticol cells. The inset shows the granular cytoplasm of these cells and their clase relotionship with a copillary.

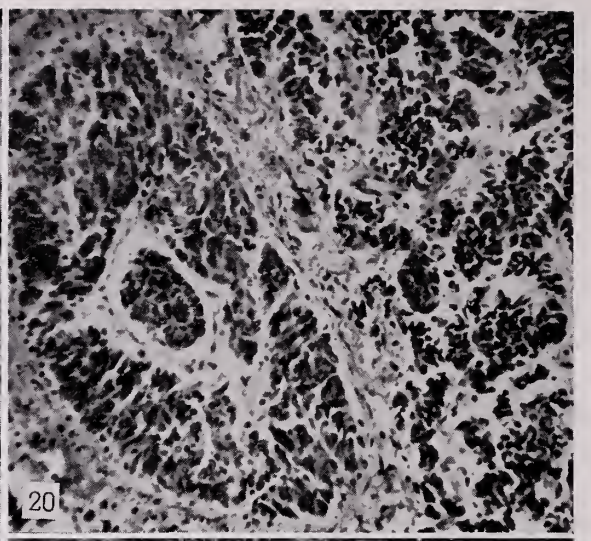
Fig. 16. Case 12. Left. Highly magnified tumor cells. The rhabdamyablast in the center is racket shaped, and the head contoining the nucleus has large peripherally placed vacuales on one side af it. These probably contained glycogen.

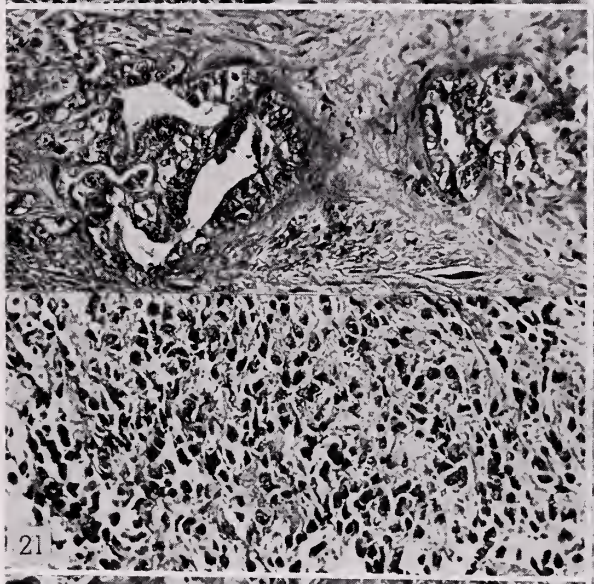
Right. The admixture af giant and elangated cells composing the tumor.

Fig. 17. Cose 13. Roentgenogram af tumar which was pedunculoted and attached to the pasterolateral surface af the lawer labe af the right lung.

Fig. 18. Cose 13. Phatomicragraph af the fibraus tumar shawing variability of cells and fibers.







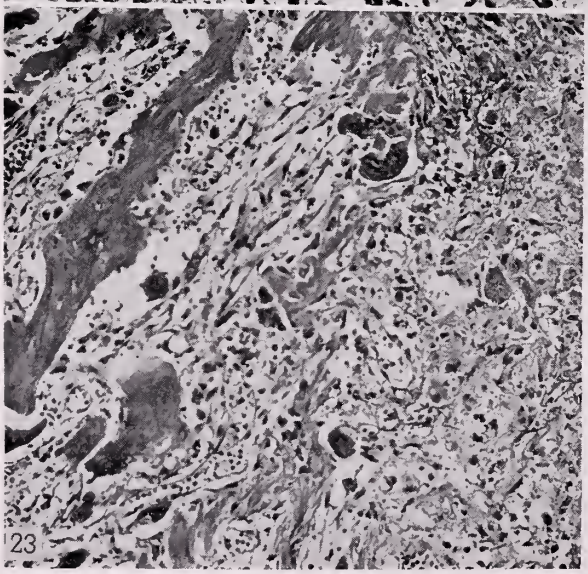


Fig. 19. Case 14. Left. The twisting cords of tumor cells separated sharply by fibrous bands.

Right. Two groups of tumor cells forming pseudorosettes.

Fig. 20. Case 15. Arrangement of undifferentiated tumor cells which form vaguely defined cords.

Fig. 21. Case 16. Differentiated glandular carcinoma above and sarcoma-like tumor cells below.

Fig. 22. Case 17. Peculiar grouping of cells and fibers about blood vessels.

Fig. 23. Case 18. Left. Partly destroyed bone trabeculae.

Right. Granulomatous tissue with multinucleate giant cells.

cells aren't distorted in any way. They are grouped just as nicely as one sees them in small cortical adenomas. I just wonder whether our intent on trying to differentiate malignant, that is cancerous growths, and so-called benign growths is not over exaggerated. Some years ago when I was talking with Dr. Hektoen he said that there are no satisfactory terms expressing the behavior of neoplasms. He used the term "cancerous" for "malignant." Perhaps we should emphasize certain qualities of the neoplasms that would indicate their behavior. A benign growth expands like a toy balloon; the malignant growth infiltrates, invades, and metastasizes. We could say of a neoplasm that it is invading, or that it is invading and metastasizing.

Dr. Stout: This, of course, is a tumor of an endocrine organ, and if you take all the tumors of the endocrine organs, I think you will find that in many instances a tumor with a benign aspect may surprise you by metastasizing. Take the islet cell tumors of the pancreas; I don't know any way to tell when one of them is going to metastasize and when one isn't. The reverse can be true. Take the paragangliomas—the nonchromaffin paragangliomas, if you choose, or the paragangliomas or pheochromocytomas of the suprarenal medulla; they can invade and do invade blood vessels freely, yet it is seldom that that results, in my experience, in fatal metastases. Maybe those cells that get into the veins do break off and go to the lungs or liver; but if they do, they must be destroyed there frequently, because of the infrequence with which actual metastases stop and grow. I haven't seen enough of the cortical tumors of the adrenal to have much opinion about them, but it is my understanding that it is possible to have an adrenal cortical tumor with all of the indications of being a benign growth which you have enumerated suddenly behave like a malignant tumor. So I always feel that one has to be a little cautious in being dogmatic about the expected behavior of one of these tumors of an endocrine organ.

Dr. Halpert: Once any of these have metastasized then there is no hesitation about them. As a matter of fact, I didn't want to take this up earlier in the morning, but when a basal cell tumor metastasizes, I would call it an undifferentiated squamous cell carcinoma.

Dr. Stout: An undifferentiated squamous cell carcinoma? Have you ever seen a basal cell tumor that metastasized? Come up to our laboratory and we will show you one that still looked like a benign basal cell tumor.

Dr. F. C. Coleman, San Antonio: I want to add a little follow-up. The six month follow-up on this patient showed a disappearance of the virilizing effects of the tumor except for the hoarseness. She did not show any evidence of recurrence, and her 24 hour excretion of 17-ketosteroids was 3.2 mg.

Dr. Stout: Well, it is good to get even a six months follow-up, although of course that isn't nearly enough to prove whether it is benign or malignant. I went so far as to make my diagnosis adenoma without any question mark on it, but in the discussion I sounded a note of warning that perhaps it might metastasize. If you sit on the fence on every tumor, it no longer becomes practical. You've got to take these things by the behavior of the majority of them showing the characteristics which the tumor under consideration shows. As Dr. Halpert pointed out, all the characteristics that we can observe in this tumor suggest that it is not a malignant tumor; therefore, I made the diagnosis of adenoma with the suggestion that it could be wrong, but I didn't put that suggestion in the diagnosis.

CASE 12

Diagnosis.—Rhabdomyosarcoma (malignant teratoma?) of testis.

Contributor.—Dr. E. Contreras Rodriguez, Mexico, D. F., Mexico.

History.—A 13 month old, well nourished boy was referred to the Children's Hospital because of a large testicular tumor of several months' duration. He was operated upon immediately, and a provisional diagnosis of seminoma was made. The gross surgical specimen was a large tumor involving the whole testicle and its coverings. Lymph nodes were not removed.

Follow-Up.—The patient was kept under observation until he was 5 years of age, at which time he was considered to be free of symptoms. He is still alive and enjoying excellent health at the age of 9.

Submitted Diagnoses.—Malignant teratoma (predominant rhabdomyosarcoma), 3; rhabdomyosarcoma, 12; benign teratoma, 5; malignant teratoma, 5; mesenchymoma, 5; myxoma (myxosarcoma), 4; embryonal carcinoma, 3; fibrosarcoma, 3; miscellaneous, 3.

Dr. Stout: Well, the majority called it a rhabdomyosarcoma. Colonel Farinacci, what does that mean with myxosarcoma in parentheses? Is that the way they expressed it?

Col. C. J. Farinacci, Fort Sam Houston: Well, a couple of them did, so I surmised that they meant myxoma, and therefore I lumped them together.

Dr. Stout: You possibly are aware that I don't know what a myxosarcoma is, so I never use the term. Thus the majority, but not everybody, thought it was a malignant tumor.

Two slides contain four sections. These show an embryonal type of immature testis with a large rete and a well developed epididymis. Associated with the testis is a tumor that is variable in its appearance; there are areas of rounded small cells, myxoid areas with stellate cells, one area with scattered large irregularly rounded or nodular cells with acidophil cyto-

plasm, and adjacent to them a few slender strap cells with acidophil cytoplasm, and finally fibrosarcoma-like areas. No epithelial elements are detected.

In this case the tumor so far as it can be observed in the sections furnished is a rhabdomyosarcoma and no differentiated or undifferentiated epithelial elements can be detected. If the tumor had been on a free surface like the bladder or perineum, it might have formed grapelike edematous areas like the sarcoma botryoides. Dixon and Moore do not recognize a primary rhabdomyosarcoma of the testis although they do recognize that such a tumor can develop in the lower part of the cord. They follow the general belief that if a rhabdomyosarcoma does form in the testis, it must be the unilateral development of one tissue in a malignant teratoma. This may be true, but I cannot see any reason for assuming that a rhabdomyosarcoma such as this may not have been a pure one-cell type of tumor. The sarcoma botryoides can develop in the prostate of a male; why not also in the gonad? The child at present is reported without evidence of metastasis, and well. If he should remain so, it seems to me an argument in favor of the sarcoma botryoides variety of rhabdomyosarcoma because that tumor type in the genitourinary organs seldom metastasizes while the teratoma of the testis metastasizes widely. In any event the tumor must be either pure rhabdomyosarcoma or the rhabdomyosarcomatous form of the malignant teratoma.

Dr. Béla Halpert, Houston: I called this a fibrosarcoma, and thought it originated in the epididymis. I was the first to describe one of these fibrosarcomas occurring in the epididymis,* and I thought this wasn't an exact image of it, but one which was close to it, particularly that interlacing pattern of the cells. However, your demonstration of cross striations shakes my confidence in that diagnosis. On the other hand, if one thinks of a myoblast as a mesodermal cell, it is possible for the cell which looks like a fibroblast to be a precursor of a cell which eventually develops striations. There is a stage of development in the wall of the gallbladder where no muscle cells are seen, but the fibroblasts seen are perhaps the precursors of the smooth muscle cells. Since the majority of the cells haven't acquired these striations I still would favor the diagnosis of fibrosarcoma of the epididymis. Those tubules are those of the epididymis and not of the testis.

Dr. Stout: I can't go along with you on the fibrosarcoma idea. If you open the door to fibrosarcomas producing cells of the aspect of rhabdomyoblasts, I think you are going to confound the diagnostician into an inability to predict properly what is going to happen to fibrosarcomas. I have spent a long time on that subject, too, and I believe that the explanation that you are suggesting can perfectly well be reversed. It seems to me that any of these special cell types can have areas of fibrosarcomatous aspect, and I believe that that attitude toward these growths has helped me very much in sorting out the liposarcomas, for example, with extensive fibrosarcoma-like areas, and calling them liposarcomas with the connotations that accompany liposarcomas. For example, the malignant fibrosarcoma which is purely fibrosarcomatous but made up of anaplastic cells with lots of mitoses is a very malignant tumor indeed, metastasizes easily, and generally kills the patient. On the other hand the metastatic rate and the degree of malignancy of the liposarcoma of the poorly differentiated variety is much less, and I think it has been of some use to separate them. As I say, it has helped me to do that, by suggesting that any of these mesenchymal tumors can revert to fibrosarcoma-like areas, that is, revert to just the production of connective tissue fibers, because that was probably the original function of most of the mesenchyme. You are taking the other aspect.

Dr. Halpert: I am going along with you, Dr. Stout, on this. I think that it is true that whenever even in small areas a characteristic is clearly discernible, that takes preference over the undifferentiated areas. In a carcinoma, for example, if we see a few acinar-tubular structures, we are justified in calling it a columnar cell carcinoma, or adenocarcinoma, or whatever name is used. If this is, and it seems that it is, a rhabdomyosarcoma, it is a tumor indeed very rare, and probably the first one seen. I must admit that I was uncomfortable about the diagnosis of fibrosarcoma because it just wasn't quite like the first one that I saw, or a second one which I have seen since. I am glad that your special stains demonstrated that it was not a fibrosarcoma, and I do not insist on calling it that.

*Halpert, B., and Thompson, W. V.: Fibrosarcoma of Epididymis, Arch. Path. 43:358-362 (April) 1947.

CASE 13

Diagnosis.—Benign solitary fibrous mesothelioma of the pleura.

Contributor.—Dr. Sylvia Johns, Nix Laboratories, San Antonio.

History.—A 50 year old white woman had a negative chest roentgenogram from a mobile unit survey in January, 1954. A similar survey film in 1955 showed a solitary peripheral lung tumor, and exploratory thoracotomy was done. When the chest was opened, the right lung was found to be free in the pleural space. There were no adhesions. A large, smooth, round, firm, very hard, pedunculated mass measuring approximately 1.5 inches in diameter was found arising from the posterolateral surface of the right lower lobe—actually from the junction between lateral and posterior basilar segments of the right lower lobe. A lobectomy of the right lower lobe was performed, and the postoperative course was uneventful. The gross specimen consisted of a globular, bosselated, encapsulated hard tumor

measuring 4 by 3.5 by 2 cm. It had a small tag of attached soft lung. On gross section, the nodule was solid and predominantly gray and fibrous with small reddish foci.

Submitted Diagnoses.—Benign solitary fibrous pleural mesothelioma, 25; pleural fibroma, 12; pleural fibrosarcoma, 1; neurilemmoma, 1; sclerosing hemangioendothelioma, 1; bronchogenic carcinoma, 1; leiomyoma of lung, 1; actinomycosis, 1.

Dr. Stout: The predominant suggestion is benign solitary fibrous pleural mesothelioma; pleural fibroma is practically the same thing; pleural fibrosarcoma is not the same thing. I disown that spelling [neurilemmoma] with violence!—and I am prepared to support that with lots of correspondence with Greek professors and other Greek scholars, as well as some of the older editors of dictionaries. Apparently the modern dictionary editors have not investigated the derivation of the word, but I will just draw a line through one "m" there.* Then we have a sclerosing hemangioendothelioma, bronchogenic carcinoma, leiomyoma, and actinomycosis! Now let us see the roentgenograms.

Col. Henry C. Harrell, Fort Sam Houston: It certainly would be nice for a radiologist—he could live a good life if he had that many pathological diagnoses from which to choose. This is the tumor in question. The outline is fairly discrete. The point that I think as a radiologist I should make first is the location, if it is possible to determine, and then some guesses at what it might be. The oblique film shows this lesion in a slightly different aspect and indicates that it is far posterior. That still does not tell us exactly where it is. Is it along the nerve distribution of the intercostal nerve; is it in the pleura; or is it in the lung? Oftentimes if it is of neurogenic origin, the little neural groove along the rib will be enlarged. That is not the case here. The old trick that you all know to differentiate whether it is in the pleura or lung, or whether it is in the parietal pleura or visceral pleura, is pneumothorax, which we do not have the benefit of in this case. Pneumothorax would separate it away from the parietal pleura if it were situated there. The other procedure is a laminographic study, which would also help us with the periosteum of the rib, and whether or not there is evidence of calcium in the lesion. The lesion lies very close to the parietal pleura, and in the differentiation most of the things considered when the diagnoses were given should be mentioned. It does have the characteristic shape of a pleural mesothelioma, which is sometimes multiple, but in this case, as nearly as we can determine, is single.

Dr. Stout: If this had been a neurofibroma and the rib were grooved, it would indicate that the nerve running along the rib was also involved. If, on the other hand, this were a neurilemoma, we would not see, I think, that grooving of the rib because the neurilemoma is an encapsulated tumor that enlarges the nerve only at the very site where it grows and doesn't extend within the nerve at any distance away from it.

Colonel Harrell: Well, I certainly would not disagree with that because I do not know enough about it. But if it is attached to the nerve at all there should be some periosteal reaction at the site. It might be very localized. Neurofibromas of course are multiple many times, and they usually occur nearer to the spine. This far peripheral on the nerve would be highly unlikely.

Dr. Stout: Yes, that has certainly been my experience. It would be nearer the spine, but it might be an intercostal nerve, as you say.

Now we have no gross picture of this, and I am not absolutely sure about exactly where it was attached to the pleura; but certainly it is a tumor which was attached to the pleura, probably the visceral pleura, and I believe that it almost certainly projected outward from the pleura into the pleural space. I'll show you why in a moment.

This is an exceedingly fibrous tumor, the surface of which is covered in part by somewhat swollen to flattened mesothelial cells. The attached lung tissue is not seen. The arrangement of the spindle, elongated, or almost rounded cells composing the tumor can best be described by the word patternless. They vary completely in numbers in any given part compared with an adjacent part, they run in various directions, and there are sudden changes from quite cellular to quite acellular areas. All of the cells have the appearance of well differentiated fibroblasts, and mitoses are not seen. Where the surface mesothelial cells are preserved and not rubbed off, the tumor cells impinge directly upon them.

The diagnosis here is easy for anyone who has seen these growths in the pleura. They look much alike both grossly and histologically, and the "patternless pattern" of the fibrous growths is not found elsewhere in the body except in connection with mesothelial surfaces. It is my belief that, in spite of the large number of collagen and reticulin fibers, these tumor cells are derivatives of mesothelial cells. The basis for this was the tissue culture observations of Margaret Murray upon the solitary malignant fibrous

*"*In regard to the spelling of neurilemoma with one m: Traditionally the word neurilemma has been spelled with two m's because the dictionaries have long been under the impression that the Greek word 'lemma,' a loosely applied sheath or bark, was the word from which it was derived. Actually, its proper derivation is from the Greek word 'eilema,' a closely applied sheath or covering. The French devised this name originally and their spelling 'nevrilème' with one m reflects this more accurate derivation. I was responsible for introducing the word 'neurilemoma,' spelling it with one m according to this derivation."* — *Stout, A. P.: Neurilemoma of Sciatic Nerve, Cancer Seminar 1:8-9, 1950 (Proc. Seminar at Penrose Cancer Hospital, Colorado Springs, Colo., 1949).*

mesothelioma which grew only mesothelial cells when explanted in vitro.

The last time I looked up the records of our mesotheliomas of all kinds in the three cavities was in December, 1953, when we had 165 cases. These are recorded in table 2 from the paper I published in the *Archives d'Anatomie Pathologique* in 1954. This shows that one can divide these mesotheliomas in three different ways: whether they are solitary or diffuse, whether benign or malignant, and whether fibrous, tubular (including papillary), or a mixture of these two. In the pleura most of the tumors were either benign solitary and fibrous, projecting into the pleural cavity or into an interlobular space, or else they were malignant solitary and fibrous and were buried in the lung. The rare mixed varieties were of great importance to my conception that the fibrous

TABLE 2.—*165 Cases of Mesotheliomas Studied at the Columbia-Presbyterian Medical Center from July, 1919, to December, 1953.*

	Solitary			Diffuse		
	Fibrous	Tubular	Complex	Fibrous	Tubular	Complex
Pleura 88:						
Benign	40	4	2	2	0	1
Malignant..	25	1	0	8	4	1
Peritoneum 71:						
Benign	8	22*	0	0	0	0
Malignant..	7	7	1	2	23	1
Pericardium 6:						
Benign	0	0	0	0	1	0
Malignant..	0	0	0	2	3	0
Total 165:						
Benign	48	26	2	2	1	1
Malignant..	32	8	1	12	30	2

*Epididymis 11; uterus 5; tube 3; colon 1; pelvic peritoneum 2. (Modified from Stout, A. P.: Les Mésothéliomes de la plève, du péritoine et du péricarde, Sem. des Hôp. de Paris, Arch. d'Anat. Path. 30:A-115-A-119, 1954.)

tumors of these serous surfaces were really derived from mesothelial cells, for the inclusion of the more familiar tubular mesothelial structures in fibrous tumors seemed to lend support to the hypothesis that both of them could develop from mesothelium.

These tumors which project out into the pleural or peritoneal cavities are fibrous, they have the characteristic patternless pattern, and they are benign. I know of only one case which may have been related to a malignant tumor. This was in a man from whose visceral pleura a tumor of this sort was excised with a bit of lung attached. Seven years later a malignant solitary fibrous mesothelioma developed beneath and attached to the cicatrix in the lung and pleura from which the original tumor had been removed. I presume we must suppose the two tumors were related and that this type of removal has a certain hazard. It is so remote, however, that I think the morbidity connected with lobectomy might counterbalance the danger of recurrence in malignant form, making simple excision the operation of choice.

CASE 14

Diagnosis.—Bronchial adenoma (carcinoid type) of lung with metastasis to a hilar lymph node.

Contributor.—Dr. F. C. Coleman, Santa Rosa Hospital, San Antonio.

History.—A 26 year old woman had a routine roentgen examination of her chest which revealed an asymptomatic, round, opaque lesion located in the lower lobe of the right lung just above the right cardiophrenic angle. Physical examination revealed no other abnormalities. A lobectomy of the right lower lobe was performed.

Within the lung tissue, 1.5 cm. from the posterior end of the resected bronchus, was a well circumscribed, round tumor measuring 4 cm. in diameter. On section the tumor had a pale yellow-brown color. Distal to the tumor were several irregular cavities filled with necrotic gray-brown material. A small, oval lymph node, 1.2 cm. in diameter, which appeared to be involved by tumor was removed from the right hilar region.

Follow-Up.—The patient has been well, without any evidence of recurrence.

Submitted Diagnoses. — Bronchial adenoma (carcinoid type), 39; adenocarcinoma of lung, 2; metastatic carcinoma, 1; metastatic carcinoid, 1.

Dr. Stout: I had supposed the diagnoses would be nearly unanimous. Now let's have the roentgenograms.

Col. Henry C. Harrell, Fort Sam Houston: Without benefit of all those astute diagnoses from the chest men, I'd like to point out that it is not nearly that obvious with roentgen ray. Here we have a rounded lesion and there is no area of lung between the lesion and the heart, which would place it anterior in the chest. It is fairly solid in appearance, and there is no calcium that I can see in it. There is also no atelectasis that can be seen, with the possible exception of a slight amount in the middle lobe. The lateral film shows the lower boundary of the mass, and there is some atelectasis that goes posterior in the lower lobe instead of the middle lobe. From the radiologic point of view we just have to differentiate a solid mass, and from the age of the patient we could start out with an adenoma. If the patient were a little older, there is no way I know that one could tell for sure whether this is an adenoma or a bronchogenic carcinoma.

Dr. Stout: Is that atelectasis enough to make you feel fairly confident it is a bronchial growth?

Colonel Harrell: Yes, sir, I think I could be fairly certain of that.

Dr. Stout: Now we have a photograph which is a pretty picture of the tumor; but the cut has been made in such a way that I can't figure out where this is in relation to the hilus. It seems to be extending out into a bronchus, and probably largely obstructing it, because I think this is a little bit of

bronchial space here. You can see that it extends well out toward the pleura, and quite far in, but what its definite relationship with the bronchi and the hilus may be, I am not sure. We have to go along with the roentgen-ray picture that it probably is obstructing a bronchus. Now we will proceed to look at the microscopic appearance of this growth, which is striking.

This tumor has the characteristic appearance of the bronchial adenoma of carcinoid type. The cells usually are arranged in rather large rounded or ovate clusters with fibrovascular septums separating the clusters. The cells vary from rounded to elongated; the cytoplasm is filled with very fine granules. Occasionally the cells form rosettes. There is little variation from this picture, and mitoses must be rare, for I have not found any. The most striking variation from the usual histological picture is the presence of groups of tumor cells in a considerable number of endothelial-lined tubes. Some of these are probably capillaries, for they communicate with capillaries and occasional isolated red blood cells are found in them. Whether or not any of them are lymphatics I do not know. In places the tumor cell clusters have "shrunk away" from the surrounding fibrous tissues as so often occurs in carcinoid and islet cell tumors. A small amount of differentiated bone is found buried in one part of the tumor.

The picture is characteristic of the carcinoid variety of bronchial adenoma. The interesting feature is the fact that a metastatic deposit was found in one of the bronchial lymph nodes. The most extensive study on the incidence of metastasizing bronchial adenomas comes from the Mayo Clinic in a paper by McBurney, Kirklin, and Woolner. From April, 1937, through January, 1952, there were 111 bronchial adenomas verified histologically; of these 9 metastasized. Including their own and those in the literature, 87 cases with metastases were found. Forty-six were in the regional nodes alone. Of the 41 remaining cases metastases were found in the following organs in a decreasing order of frequency: liver, opposite lung, ipsilateral lung, pleura, esophagus and other mediastinal structures, and a scattering of organs including brain, kidney, and adrenal. These authors think that about 10 per cent of bronchial adenomas metastasize and that proportionately there are more frequent metastases from the cylindromatous adenomas, but of course these are rare forms of bronchial adenomas. They could usually detect some unusual changes in the adenomas that metastasized such as anaplasia or increased mitotic rate; where, however, metastasis went only to the regional nodes, they could not detect any differences from the ordinary adenoma in 2 cases. This present case is unusual because of the presence of tumor cells in capillaries and perhaps in lymphatics. It is of some interest that at the Presbyterian Hospital we have not had any cases of bronchial adenoma which metastasized, so far as I am aware.

Incidentally, I think it is a pity that the cylindromatous tumors should be classified with the carcinoid type of adenoma. For me the cylindroma is a carcinoma and should be called a cylindromatous carcinoma rather than adenoma. There are such tumors as simple mucous adenomas of the bronchial mucous glands. They are quite benign. They are extremely rare.

Let me ask one question. Would anybody who has seen a metastasizing bronchial adenoma hold up his hand?—exclusive, of course, of this case. Well, quite a number have—about 10.

CASE 15

Diagnosis.—Undifferentiated carcinoma (?) of anterior mediastinum.

Contributor.—Dr. E. Contreras Rodriguez, Mexico, D. F., Mexico.

History.—A 50 year old man developed rapidly progressive facial edema and dyspnea. A huge mediastinal tumor was shown by roentgen ray and proved to be radiosensitive. In spite of intensive treatment the patient died. At autopsy the main mass was in the anterior mediastinum involving the great vessels and the upper pericardium. It extended toward the trachea and bronchi without important distortion. There were metastases to the mediastinal and mesenteric lymph nodes and to the lungs and liver.

Submitted Diagnoses.—Bronchogenic carcinoma, anaplastic, 17; thymoma, 9; malignant thymoma, 10; spindle cell carcinoma, thyroid, 1; squamous cell carcinoma from a mediastinal teratoma, 1; mesenchymoma, 1; ¿Quien sabe?, 1; sympathicoblastoma (neuroblastoma), 2; reticulum cell sarcoma, 1.

Dr. Stout: Well, we have bronchial carcinoma, thymoma, and malignant thymoma, so we have 19 thymomas to 17 bronchogenic carcinomas, and then a scattering of other diagnoses. Now we have some roentgenograms.

Col. Henry C. Harrell, Fort Sam Houston: This probably is amusing to everybody but the patient, and believe me, when the tumor looks like this radiologically, it is not amusing to the patient. This is a big tumor and it appears to be infiltrating. It looks like it is growing out into the lung in all directions. I cannot make out the trachea very well, but I think it is a little displaced. The tumor appears to have arisen in the mediastinum some place. There is little atelectasis here. The minor fissure is not displaced as one would expect if a large portion of the lung were atelectatic. There is a moderate amount of emphysema below it. The diaphragm is lowered and straightened, which is compensatory for the amount of tumor that occupies the upper lung.

The anterior margin of this large tumor can be located more or less in the anterior portion of the

mediastinum. Most of the tumor lies laterally to the trachea, but then it comes anteriorly also. There is not much evidence of atelectasis. It is all infiltrative.

As far as the differential diagnosis is concerned from the roentgenologic point of view, most of these tumors demonstrating this appearance will be bronchogenic carcinomas. As far as the malignant thymoma, which was a popular diagnosis, is concerned, I certainly could not say from the radiologic appearance that it is not one; but in my experience the thymomas have been distributed in a little different manner. They can come out of the mediastinum in any direction, of course, but the ones I have seen, which have been few, have been further down in the mediastinum. Bronchogenic carcinomas also can occur anywhere, but I think that from a roentgenologic point of view I should say this is probably a malignant tumor arising near the mediastinum. Bronchogenic carcinoma would be my choice.

Dr. Stout: Have all of the thymomas that you have known to be such been anterior and just behind the sternum? Have you ever seen one that wasn't?

Colonel Harrell: No, sir, I do not believe I have seen one in the posterior mediastinum, and low, either. The few I have seen have been mostly in the anterior and lower portion of the mediastinum.

Dr. Stout: The following is the gross autopsy report:

In the thoracic cavity, the right pleural cavity presents adhesions, firm in the upper part; after these are broken, 250 cc. of serosanguinous fluid is found. In the left pleural cavity there are also firm adhesions and the same type of fluid in the quantity of about 500 cc. The pericardial sac is very thick and contains 500 cc. of straw colored fluid. In the posterosuperior mediastinum there are several masses of tumor-like aspect of a grayish-white color, soft, that extend toward the right lung and to the front, enclosing the great vessels and invading the atrial walls. In the abdominal cavity there is a small amount of straw colored fluid. There are a few adhesions in the splenic angle of the colon. After these are broken there is found a tumor-like nodule in the diaphragm. Some mesenteric lymph nodes are moderately enlarged.

In the study of the organs, in particular the gastrointestinal tract, there are not found any important alterations. In the lesser omentum and in the edges of the pancreas there are several enlarged lymph nodes which are firm. The pancreas weighs 110 Gm., and on multiple cut sections it presents a nodule with a tumor aspect in the parenchyma about the head of the pancreas. The liver weighs 1,960 Gm. Its surface is smooth and purple with yellowish discolorations. In the right lobe there are two neoplastic nodules, and there is one more in the Spiegel lobe. The right main bronchus is filled with a purulent material. Both lungs weigh 2,300 Gm. The left lung is seeded by tumor-like nodules, and on cut section the parenchyma appears congested. The right lung presents marked congestion in its middle and inferior lobes. The superior lobe is very large and presents costal indentations with marked thickening of the pleura. On its sagittal section are found gray hepatization of all of the superior lobe, and a tumor nodule, apparently extrapleural, in its inner margin. In the circulatory system the neoplastic invasion of both atriums and the involvement of the great vessels by the tumor have been mentioned. Excepting these, the heart is not remarkable in its cavities. The aorta presents plaques of atheromatous calcification. All the lymph nodes around the aorta and in the abdomen, as well as in the thorax, are enlarged and have a tumor-like aspect. The urinary bladder, kidneys, and endocrine glands are not remarkable. Both testes were said to be normal. The spleen is atrophic, weighing only 60 Gm., and on cut section large areas of fibrosis can be seen. In the central nervous system cut sections are not remarkable.

A large number of sections were furnished me, made from various parts of this tumor and its metastases. They all show a comparable picture, and there is no essential variation from one part to another. The tumor cells grow in well defined and generally rather slender cords. The individual cells are predominantly oat shaped, but some appear rounded. They are anaplastic and do not appear to secrete anything nor show any metaplastic glandular or epidermoid differentiation. In one or two places I thought I could detect the formation of pseudorosettes, but I could not be sure, and since there is no decided evidence of this I could not accept it as significant. Mitoses seem frequent and there is a more-or-less marked tendency for the cells to become necrotic.

A tumor in the anterior mediastinum may be a thymoma, a benign or malignant teratoma, a thyroid or parathyroid tumor, occasionally some of the uncommon forms of sarcoma or benign mesenchymal neoplasms, a malignant lymphoma, a nonchromaffin paraganglioma of an aortic body, a neuroblastoma, or an oat-cell carcinoma either metastatic from the lung or primary from foregut tissue in the mediastinum. There are probably some others which I have forgotten, but there are enough named to permit discussion.

I am willing to exclude thymoma because this is a single cell type and also because it has produced blood-borne metastases, which Castleman says do not occur in cases of thymoma. It bears no resemblance to tumors of the thyroid, parathyroid, or aortic bodies, so that I am willing to exclude these from consideration. All benign tumors can be excluded, including benign teratomas. I do not know of any malignant lymphomas which look like this tumor with its tendency to grow in cords; I will therefore exclude that group. This leaves a malignant tumor derived from one element of a teratoma; a neuroblastoma (sympathicoblastoma); and a metastasis from another site, possibly a primary oat-cell carcinoma of the lung.

Woolner, Jamplis, and Kirklin have described 3 cases of seminoma of the anterior mediastinum. In 2 of them the seminoma was the only finding; in the third case the seminoma was part of a teratoma. I cannot believe the tumor under discussion is a seminoma, for the cells composing it are quite different from the gonadal germinal cells. Can it be a neuroblastoma? This is distinctly a possibility. The neuroblast is not always rounded; it may be oat shaped as here. The cells as far as I can judge from the hema-

toxylin-eosin sections do not have any fibrils associated with them, and the marked tendency to necrosis is often seen in this tumor type. The age of the patient is against it, although it is not impossible for a middle aged adult to have a sympathicoblastoma. The anterior mediastinum is an unusual place, but again, not impossible. It could come from the neurogenous tissues of a teratoma and overgrow everything else. This I cannot exclude, but without some clinching evidence cannot accept. Finally we must consider an oat-cell carcinoma, either primary in the lung and metastatic in the mediastinum, or primary in the mediastinum growing from the out-pouching anlage of the foregut which eventually forms the bronchi and lungs. The histological features of this tumor could equally well apply to the oat-cell carcinoma as to the neuroblastoma. I spent some time looking for some differentiating features which might enable me to be certain this was an oat-cell carcinoma, but I failed. Therefore I cannot decide definitely between neuroblastoma and oat-cell carcinoma. We do not have an accurate description of the tumor in the lung so that I can form no opinion as to whether or not any of the areas of lung involvement might be considered primary. We have to presume that whoever did the autopsy did not think so at the time when it was done. Purely on the basis of probability I favor an oat-cell carcinoma derived from a teratoma or from a foregut anlage in the mediastinum, but it might be some one of the other explanations I have suggested, or something I have not thought of.

CASE 16

Diagnosis.—Collision tumor of gallbladder. Carcinoma differentiated of gallbladder. Malignant mesenchymoma (?) of gallbladder.

Contributor.—Dr. A. O. Severance, Baptist Memorial Hospital, San Antonio.

History.—A 67 year old white woman had a one week history of pain in the right upper abdominal quadrant. She was obese and moderately jaundiced. A mass was thought to be palpable in the right upper quadrant, and at surgery a tremendous tumor of the gallbladder involving the liver and splenic flexure of the colon was found. This was inoperable because of deep infiltration into the liver. The gross specimen consisted of a gallbladder 15 cm. long and ranging from 3 to 8 cm. in diameter. It was attached to a 3.5 cm. piece of liver which was replaced by a glistening gray tumor. A single large stone was found in the lumen of the gallbladder. The mucosa of the gallbladder showed a friable papillary soft tumor growing from multiple sites. It was also extending through the wall, and in some areas it had a gross appearance of fat. The patient died at home five weeks after surgery, and no autopsy was performed.

Submitted Diagnoses.—Adenocarcinoma of gallbladder, 24; carcinosarcoma, 11; combined adenocarcinoma and sarcoma, 3; squamous cell carcinoma, 1; adenocanthoma, 1; rhabdomyosarcoma, 1; liposarcoma, 1; small cell sarcoma, 1.

Dr. Stout: We'll consider the appearance of the gallbladder. It is laid open and the tumor partly projects out into the lumen of the gallbladder. Some of it is nodular and perhaps a little ulcerated, or eroded, on the surface. A cut of the gallbladder wall shows a thick muscularis. I don't know whether there is tumor invading outside of the gallbladder or not, but in any event it can be seen that there is a large area of tumor in the gallbladder.

This section shows a portion af the gallbladder wall. In one area the mucosa is replaced by a fungating tumor which is made up of masses and strands of completely undifferentiated anaplastic cancer cells. They do not form glands, and the mucicarmine stain shows no evidence of mucin secretion. This part of the tumor is limited to the mucosa and the superficial part of the thickened edematous submucosa. In the muscle coat and the deepest part of the thick submucosa are strands of well differentiated cancer cells which form bizarre glands, and their cells show evidence of mucin formation with the mucicarmine stain. There is no evidence in this section that the two carcinoma variants are in contact.

For some reason which I do not understand the gallbladder is an organ which develops carcinomas that are apt to differ in histological characteristics in different focal areas. There are not infrequently glandular and squamous areas in different parts of the same gallbladder or, as in this case, separate differentiated and completely undifferentiated foci in the same organ.

Tragerman reviewed 173 cases of gallbladder carcinoma from the Los Angeles General Hospital. He classified all the tumors as adenocarcinomas. Among these there were 22 classified as mixed types of adenocarcinoma and 6 more in which there were both squamous and adenocarcinomas. That is, about 16 per cent of the cases he studied had more than one type of carcinoma.

This case 16 had a large stone in the gallbladder. The statement has been affirmed and denied that all carcinomas of the gallbladder are associated with stone. Tragerman reports that he found stones in 138 of the 173 cases, or 79.8 per cent. That conforms with the findings in our cases. The relationship of gallstones to the etiology of carcinoma is discussed by Tragerman. No conclusion about this could be reached because of conflicting data. The results of attempts at treatment are generally disappointing, and few cures are reported. Tragerman has only 1 patient alive and well 12 years after operation.

The discussion and conclusion reached in this case was based upon the tissue submitted to the group for the seminar. By a devious grapevine it was brought to my attention that I had seen slides from this case two years before and had expressed a different opin-

ion from that which I reached from a study of the seminar slide. After investigation I found the slides sent me two years ago by Dr. Severance. I can assure you they looked very different from the seminar slides. What I have assumed to be an undifferentiated carcinoma looks much more like a sarcoma with myxoid areas containing stellate and spindle shaped cells, some of which have foamy cytoplasm containing lipids. There are other areas where the cells suggest rhabdomyoblasts but without any proof that they are. The disturbing thing about this tumor, however, is that it also contains areas like the one in the seminar slide which suggest carcinoma so that one feels confused and in doubt about the nature of the sarcoma-like portion. The differentiated carcinoma is obvious. The two tumors are in contact in one section, but they do not intermingle. We have, therefore, the choice of calling this gallbladder complex a collision tumor composed of two different varieties of carcinoma, one of which shows marked sarcomatous metaplasia, or a collision tumor made up of independent carcinoma and malignant mesenchymoma which are in contact but do not intermingle. In any event this cannot be a carcinosarcoma, for the two tumor forms are not intermingled so as to form a single tumor with both carcinomatous and sarcomatous elements. Probably the latter point of view is preferable since we know nothing about the capabilities of the gallbladder carcinoma cell to perform such miracles of metaplasia.

I'd like to ask Dr. Severance what he thinks about it, because this is his case.

Dr. A. O. Severance, San Antonio: I think that this is a carcinosarcoma, and I think it fits some of the criteria you have just elaborated upon. In the study of all areas and sections through this tumor, some areas are straight adenocarcinoma without any sarcoma elements. Some elements deeper in the wall are just plain sarcoma; and you can find areas where there are cells filled with vacuoles that stain with Scharlach R and that look like lipoblasts. Now you might say maybe that is degenerative change—the cells picking up fat from degeneration; that is a debatable point. Some areas look almost like the cells had cross striations, but I couldn't prove it. Other areas are very myxomatous, and you might worry about a myxoma. Other areas are just fibrosarcoma. Now in some areas of the tumor the sarcoma infiltrates, if you want to use that term, or intimately associates itself with the glandular part, with adenocarcinoma, and in these sections I thought each slide showed both types of tumor, because we looked at the beginning of the cutting of the block and at the end of the cutting of the block, and both types of tumor should be present in all slides.

Dr. Stout: That is, intermingled?

Dr. Severance: Yes. You got the best deal, though; you got the best blocks two years ago, and then when it came to cut for the seminar I had only what was left.

Dr. Stout: It couldn't have been the best block, because in my sections they weren't intermingled. They were in the same section, but they were not invading one another.

Dr. Severance: Well, they were very close together—right smack against each other.

Dr. Stout: Oh, yes, but that is the collision tumor —the kissing tumors.

Dr. Severance: May I be permitted to retain my original opinion?

Dr. Stout: O.K.

Dr. Béla Halpert, Houston: I agree with Dr. Stout that these are two different tumors which have met, that they are a carcinoma and a sarcoma. I have published a case of carcinosarcoma of the mammary gland where the stroma was sarcomatous and the parenchyma was the carcinoma. Such tumors exist in the mouse and in other animals too, so that the difference is just what you said. In carcinosarcomas they are intermingled; the sarcoma forms the stroma for the carcinoma.

Dr. Stout: Yes. Do you subscribe to the idea that the sarcomatous part is metaplasia of a carcinoma?

Dr. Halpert: I don't think so.

CASE 17

Diagnosis.—Hemangiopericytoma with fibromatosis (?) of thigh.

Contributor.—Col. Charles J. Farinacci, MC, Fourth Army Area Medical Laboratory, Brooke Army Medical Center, Fort Sam Houston.

History.—A 22 year old white woman had an asymptomatic mass in the right adductor canal, which was accidentally noticed at the time of her last pregnancy examination, two months prior to biopsy. Pregnancy was not interrupted. A wide surgical excision (hip disarticulation) was performed one week after biopsy.

The specimen consisted of the right thigh, which had been longitudinally and transversely sectioned. Between the vastus intermedius, the sartorius, and the adductor longus muscles at approximately the midportion of the thigh was a tumor which had been sectioned and measured approximately 8 by 6 by 5 cm. The tumor appeared well demarcated and was firm in consistency. The cut surfaces were whitish and presented a whorled appearance. It compressed the surrounding muscles and appeared to surround the femoral artery and veins.

Follow-Up.—The patient was doing fine, without evidence of recurrence and walking well with her prosthesis, at seven months after surgery.

Submitted Diagnoses.—Malignant schwannoma, 17; neurofibrosarcoma, 5; fibrosarcoma, 6; neurogenic sarcoma, 4; neurilemoma, 2; schwannoma (edema due to pregnancy), 1; myxosarcoma, 3; hemangiopericytoma, 1; sarcoma, unclassified, 2; neurofibroma, 2.

Dr. Stout: The tissue removed in this case is hard to evaluate. It consists of two fragments. In both

there is a tumor which shows peculiar characteristics of growth. These consist essentially of a fair number of thick walled vessels of capillary size with lumens and lining endothelial cells, but with tremendously thick walls composed of long spindle shaped and stringlike cells the long axes of which parallel the long axis of the capillary. These cells are in rows from 8 to 15 cells thick. There is no definite evidence that they are smooth muscle cells or schwannian in origin. Where these cells are lacking the tumor apparently becomes more vascular because the capillaries lacking the thickened walls lie closer together. An Ungewitter stain fails to show any axis cylinders save only in one area where there are three normal nerve twigs. The neurites (axis cylinders) in these are very palely stained so that they would be difficult to identify if they were buried in the more fibrous parts of the tumor.

At first glance one might suspect that the curving cords of spindle shaped cells are Schwann's cells and the structures plexiform neurofibromas. I do not think that they are, for the cells in each cord surround a capillary and I have never seen this in neurofibroma. This tumor has some of the characteristics of a hemangiopericytoma. The peculiar cells accompanying the vessels and thickening the walls are not smooth muscle cells nor apparently are they Schwann's cells, so that they must be either connective tissue cells or pericytes. It seems to me more probable that they are pericytes, since there is no tumor growth which has capillaries with enormously thick walls like this except vascular leiomyoma, mesenchymoma, and hemangiopericytoma. When one gets away from the capillaries and their tremendously thick sheaths of connective tissue fibers and spindle shaped cells, the tumor has more the general appearance of a differentiated fibromatosis infiltrating between fat cells. It would be possible, therefore, to think of this tumor as a fibromatosis with hemangiopericytomatous areas. I cannot tell from these sections whether the infiltrating fibromatosis or the thick walled capillaries predominate throughout the whole bulk of the tumor; therefore, I do not know which name to feature. Judging solely by these sections I would say that the vessels predominate, and for that reason I am calling it a hemangiopericytoma with fibromatosis. Although the thigh is one of the favorite sites for the development of metastasizing hemangiopericytomas, none that metastasized looked like this tumor.

CASE 18

Diagnosis.—Giant cell tumor of myositis ossificans of sacral region.

Contributor.—Capt. R. C. Schaffer, USAF Hospital, Lackland Air Force Base.

History.—A 24 year old white man was transferred from flight training into the hospital because of pain localized in the midsacral region. The pain was steady and aching and was accentuated by any flexion of the back. There was hypesthesia over the last three sacral dermatomes. The patient had experienced difficulty in urination and defecation during the preceding four weeks. There was no motor weakness of the lower extremities nor sensory disturbances except as mentioned previously. Myelograms and repeated roentgenograms of the lumbosacral area were negative. When a hematoma developed over the midportion of the sacrum, incision and drainage was attempted, with much blood welling from the base of the mass in the sacrum. A tumor weighing 135 Gm. was excised from contiguous muscle.

Submitted Diagnoses.—Myositis ossificans, 16; traumatic myositis ossificans with giant cell metaplasia, 3; ossifying hematoma, 2; giant cell tumor, 10; giant cell tumor (aponeurotic origin), 1; aneurysmal bone cyst, 3; osteogenic sarcoma, 4; miscellaneous diagnoses, 4.

Dr. Stout: Now the diagnoses: This caused me a lot of pain, and I imagine that it caused others pain to try to identify it. I am not sure what that giant cell tumor, aponeurotic origin means. Four thought that the lesion was malignant.

The surgeon's operative note indicated that the lesion was overlying the posterior sacrum and destroying the bone over the first, second, third, and fourth sacral segments. Prior to surgery the roentgenograms interpreted as showing no involvement of the bony sacrum. However, these films were not read by a radiologist. Postoperatively the films were restudied by the radiology staff, and they thought that the preoperative interpretation of negative bone findings in such a difficult area may not have been valid. However, they refused to state that the sacrum was involved. I think that they thought that one film showed some irregularity posteriorly over the sacrum. We don't have, unfortunately, a good operative note which told anything more about the exact degree of involvement of those sacral segments. We don't know whether it was just superficial destruction or whether it was a more important degree of destruction.

The seminar slide shows an encapsulated lesion. Outside of the capsule and attached to it is striated muscle. Inside the capsule is first a zone of very vascular, well differentiated osteoid. The trabeculae show calcification in some areas. This zone is thin and interdigitates on its internal aspect with a fibrous, vascular tissue containing a considerable number of multinucleated giant cells having the appearance of osteoclasts and, in some places, some more osteoid which is well differentiated. This tissue in its turn has adherent to its internal surface rather recent blood clot.

If we can accept all of the statements contained in the history, this is a growth which developed in the soft tissues posterior to the sacrum and probably not in the midline. The muscle is simply attached to the capsule and does not interdigitate with bone, which is not usual in myositis ossificans. I would say that the giant cell tumor appearance is also against

this diagnosis, although I am told it is possible to have a giant cell tumor of a nodule of myositis ossificans, and I have seen 1 case which conformed in appearance to this complex. The question of whether it is proper to consider this a possible example of the tumor which Geschickter and Copeland have labeled parosteal osteoma of bone is difficult to say, for we do not know its exact relationship with the periosteum of the sacrum. I have never felt that I understood this peculiar growth, which is supposed to have the histological character of a benign lesion yet actually is a malignant osteogenic sarcoma. In any event most of their cases had an obvious close relationship with a long bone, and the photomicrographs shown in their report usually have some area with malignant appearing cells as well as well differentiated osteoid or bone. I can think of them only as osteogenic sarcomas with the major portion of the growth extending outward from the periosteum and little or no evidence of bone involvement.

Recently Fine and I have been studying osteogenic sarcoma in the soft tissues. There are two variants—one is a genuine malignant osteogenic sarcoma which is just as malignant as the same tumor arising in bone. We could assemble 12 cases of this sort. In addition, there were 4 cases which were probably myositis ossificans but had areas of anaplasia suggesting a malignant change. Without exception clinically these were not malignant and should not be called osteogenic sarcomas.

In this present case there is nothing to suggest malignancy, and I think the lesion can be regarded as benign. I hesitate to call this unequivocally a myositis ossificans because it is encapsulated and bone trabeculae do not interdigitate with muscle fibers. Yet I cannot think of any other way of dealing with the fact of bone formation about the periphery. The giant cell portion can be called giant cell tumor or fibrous dysplasia of the bony portion. Obviously a hemorrhage has occurred which must account for the increase in size.

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Pressure Breathing Therapy In Chronic Pulmonary Disease

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PRESSURE BREATHING implies the application of positive and/or negative pressure either on the oropharynx or the thorax by means of a mechanical device. This pressure can be applied either continuously or intermittently. Continuous pressure has been widely used in aircraft engineering (pressurized airplanes) and to a limited extent in clinical medicine. The application of intermittent pressure, however, presents itself as the most useful and practical method of artificial ventilation. Besides its use in the treatment of respiratory arrest or paralysis, it has become increasingly popular in the treatment of chronic pulmonary disease.[1, 14]

PURPOSE

The main purpose of pressure breathing in the management of patients with chronic pulmonary disease is to produce a beneficial effect upon alveolar hypoventilation. Alveolar hypoventilation results in a rise of alveolar carbon dioxide tension and a drop in alveolar oxygen tension and leads to anoxia, carbon dioxide retention, and finally, respiratory acidosis and damage of the respiratory center. In addition to its ventilatory ill effects, alveolar hypoventilation results in pulmonary hypertension and finally cor pulmonale. When the hypoventilation is due to bronchospastic disease, bronchodilators usually are sufficient to reverse its effects. However, when the bronchospasm is superimposed in patients with primary changes in the viscoelastic properties of the lung, little improvement may be noted after bronchodilator treatment. This is particularly true in some types of chronic pulmonary emphysema where the primary lesion lies in a loss of lung elasticity which leads to uneven ventilation of the lung. Under these conditions, the application of an additional transpulmonary pressure gradient promotes the ventilation of underventilated lung areas and restores the alveolar gas tensions to normal. In addition to the ventilatory improvement, the increased flow rates during expiration help to remove accumulated secretions. When combined with bronchodilator aerosols, the latter function becomes even more effective.

Dr. Maurice S. Segal, clinical professor of medicine, Tufts University School of Medicine, and director, Lung Station (Tufts) and Department of Inhalation Therapy, Boston City Hospital, presented this material as a guest speaker at the Texas Medical Association annual session, Galveston, in April, 1956. His co-authors are, respectively, clinical instructor and assistant professor in medicine assigned to the Lung Station and Department of Inhalation Therapy.

Intermittent positive pressure and intermittent positive-negative pressure on either the oropharynx or the thorax by means of a mechanical device is a practical method of artificial ventilation. It has proved increasingly popular in the treatment of chronic pulmonary disease, to effect alveolar hypoventilation with its resulting complications, but undesirable side effects must be guarded against.

SIDE EFFECTS

Pressure breathing is a potent form of therapy with potential side effects when not properly applied. The application of excessive pressure differences may lead to hyperventilation, respiratory alkalosis, and tetany. Excessive positive pressures on the oropharynx may lead to overdistention of the lung, air leakage, and finally lung rupture. Overdistention in itself causes injury to the lung, the distention being related to time (duration of pressure), as well as to the actual pressure.

Positive pressure may be transmitted into the gastrointestinal tract and lead to distention of the stomach and intestines. This may produce undesirable vagal reflexes following the gastrointestinal dilation, increased difficulties of expanding the lungs by any means, and actual retardation of the venous return by a tense abdomen. Excessive negative pressures lead to vasodilation, pulmonary hemorrhage, and finally, acute cardiac dilatation. In normal subjects, the effects of positive oropharyngeal pressures correspond to the effects of negative pressures applied on the thorax either by tank or cuirass respirators.

The continuous application of pressure prevents the chest from coming to rest. During positive pressure breathing, the patient exerts his expiratory muscles in order to prevent overdistention, and during negative pressures, he exerts his inspiratory muscles in order to prevent collapse of his lung. This may lead to an actual increase in the work of breathing.

EFFECTS UPON CIRCULATION

In addition to the direct effects upon the pulmonary ventilation, one has to consider the effects upon the circulatory hemodynamics (fig. 1). During inspiration in normal breathing, the venous return to the right side of the heart is increased, while right ventricular and pulmonary arterial pressures fall though the pulse pressure increases. After the beginning of the expiratory phase, both right heart pressure and pulse pressure decrease markedly. The changes in the left heart are almost opposite. A reduction of the arterial and ventricular pressures at the onset of inspiration is followed by a rise during the latter phase of inspiration and early phase of expiration, and a subsequent fall during the greater part of active expiration. The right ventricular stroke volume is increased during inspiration and decreased during expiration. The left ventricular stroke volume is increased during expiration because of an increased return from the pulmonary circulation and becomes decreased during inspiration.

The inspiratory increase of pulmonary artery flow occurs despite a small increase in pulmonary bed resistance. The increase of resistance and of venous return leads to a larger residual volume in the right heart during inspiration. Part of the residual volume is ejected during expiration and expiratory pause.[8]

These hemodynamic changes occur in the normal subject but do not necessarily follow the same pattern in pulmonary disease. If pulmonary bed resistance, for instance, is already high, a further increase during inspiratory inflation of the lung could be so great that the increased venous return is unable to produce an increase in stroke volume if the heart muscle is damaged. The latter is frequently observed, independently, in patients with pulmonary disease.

In intermittent positive pressure breathing (IPPB) the same mechanism comes into play in reverse fashion, but the decrease of right heart output during rising mask pressure may be made up during the phase of falling mask pressure. The reverse occurs in the left heart but with limitations, because in-

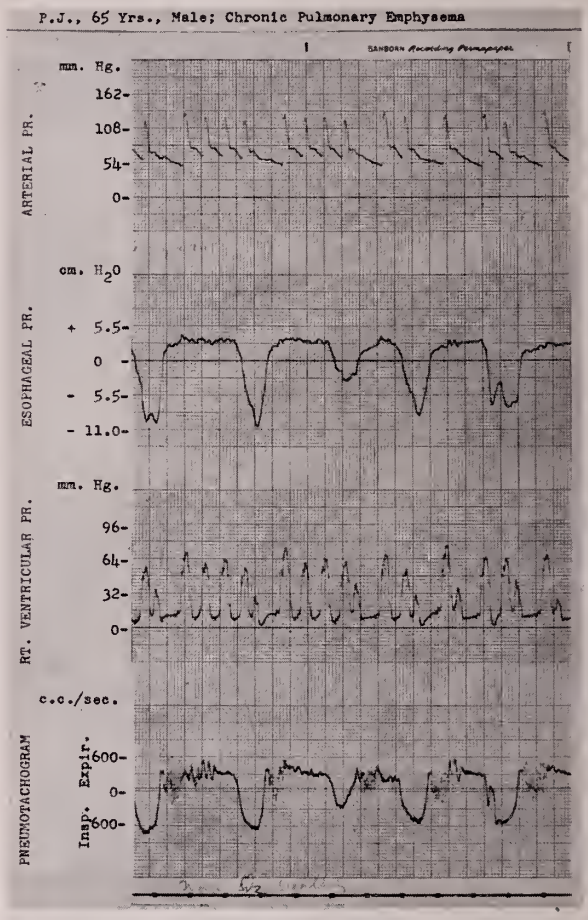

Fig. 1. Pressure changes in peripheral and pulmonary circulation with intrathoracic pressure changes in a patient with chronic pulmonary emphysema during oxygen breathing. Note the marked ball-valving in the expiratory flow pattern.

creased output during inspiration with IPPB can be maintained only during short periods (three to five beats) by displacement of pulmonary blood. If the inspiratory mask pressure is prolonged, the arterial pulse pressure decreases after the initial rise. Thus the variation in stroke volume in the right ventricle is the important part to consider in relation to changes in cardiac output.

The right ventricular net filling pressure during IPPB is decreased during periods of increased intrapleural pressure. The reverse occurs during periods of decreasing intrapleural pressure. Starling's law postulates that the deficit in cardiac output during

increased intrapleural pressure can be compensated for during the period of decrease in intrapleural pressure. If the expiratory time is sufficient, compensation may be complete.

Depending on the presence of normal circulating blood volume, existing vascular tone, and capacity of reflex vasoconstriction, the peripheral pressure rises with the rise of right auricular pressure (fig. 2). The increased peripheral pressure increases the capillary filtration pressure resulting in water loss to the tissues. It has been shown that positive pressure breathing for 30 minutes at 30 mm. of mercury causes a loss of 4 per cent of blood volume to the tissues. If sympathetic pathways are ineffective, the reconstitution of the venous gradient is greatly diminished or absent, and eventually a dangerous decrease in venous return, cardiac output, and blood pressure occurs. The same holds true for hyperactive sympathetic pathways where maximal reflex vasoconstriction has been utilized already.

In order to compensate for the decreased right ventricular output during the inspiratory phase of rising intrathoracic pressure, an ideal mask pressure with the following characteristics has been proposed: (1) gradual increase to a maximum of 25 cm. of water during inspiration; (2) rapid pressure drop early in expiration with mean pressure during expiration near to zero; (3) inspiratory time not to exceed expiratory time, thereby allowing as many heart beats to occur during expiration with increased stroke volume as during inspiration (fig. 2).

Maloney and others[9, 10] have stressed repeatedly the advantage of positive and negative pressure breathing in the presence of respiratory failure and/or circulatory embarrassment, the IPPB-type machines causing a decrease in cardiac output which may be very serious.[9, 10] The clinician should keep this in mind in patients with chronic pulmonary emphysema in whom a diminished cardiac output type of failure may be present. These investigators also concluded that cardiac output and arterial blood pressure varied with the mean airway pressure during the respiratory cycle rather than with any particular wave form.

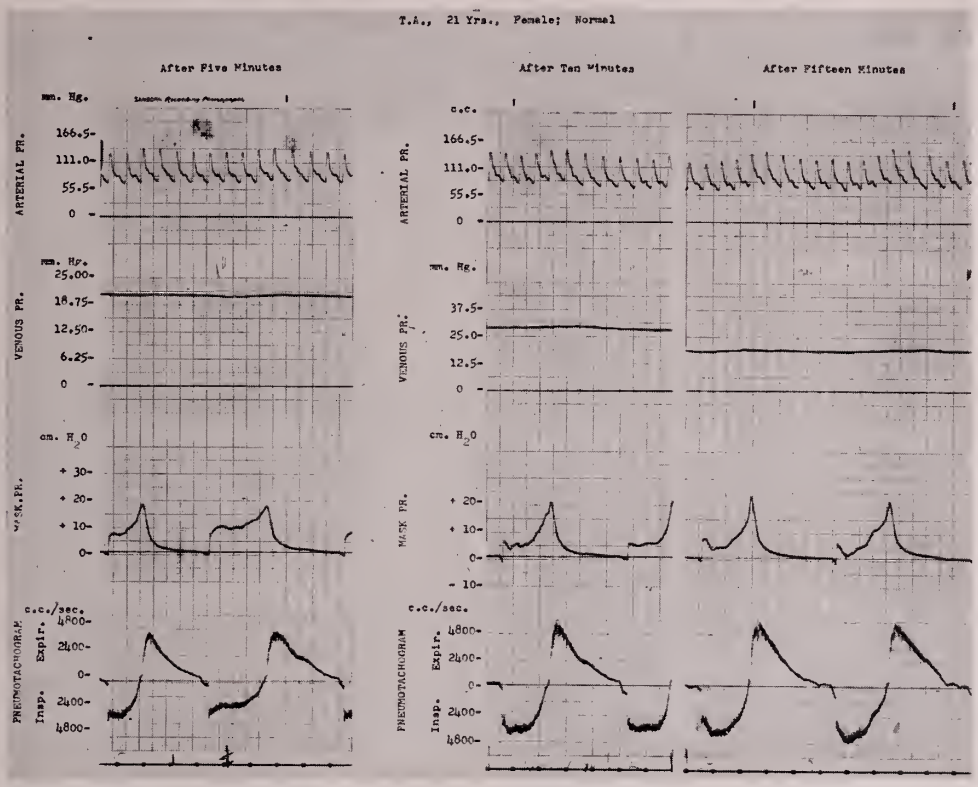

Fig. 2. Ventilatory and circulatory dynamics in a normal patient during the course of intermittent positive pressure breathing with pressure applied during inspiration by Bennett apparatus after 5 minutes, 10 minutes, and 15 minutes. Note the compensatory rise and consecutive drop in venous pressure and increased influence of respiration on arterial pressure.

POSITIVE PRESSURE

The application of positive pressure to the airway during the inspiratory phase of respiration (with the use of a mask or mouthpiece), commonly referred

to as intermittent positive pressure breathing, may be abbreviated as IPPB/I.[7, 11, 13, 15, 17] The expiratory phase of respiration is entirely passive.

The devices employed to produce this form of therapy usually consist of an inspiratory demand valve operating on a flow sensitive or pressure sensitive principle and require the use of oxygen or oxygen-air mixtures. The more commonly employed are, the Bennett, M.S.A., Emerson, Halliburton, and Monaghan valves. Positive pressures of 10 to 20 cm. of water are usually used and, on the whole, have been well tolerated. Therapeutic aerosols are generally administrated simultaneously during the inspiratory positive pressure phase of breathing.

This type of therapy has found its greatest usefulness in progressive bronchospastic disorders wherein uneven pulmonary ventilation exists, particularly when employed along with bronchodilator aerosols. It is especially helpful in patients with the carbon dioxide intoxication syndrome and respiratory acidosis.

It is generally assumed that during inspiration, positive pressure by mask is comparable to the negative pressure by body respirator and that during expiration, negative pressure by mask is comparable to positive pressure by body respirator.[18] This is probably true for normal lungs. However, in patients with changes of viscoelastic properties of the lungs, these pressures might not be transmitted, as elastic and coordinating structures have been upset by the uneven damaging of the intermediate tissues (fig. 3).

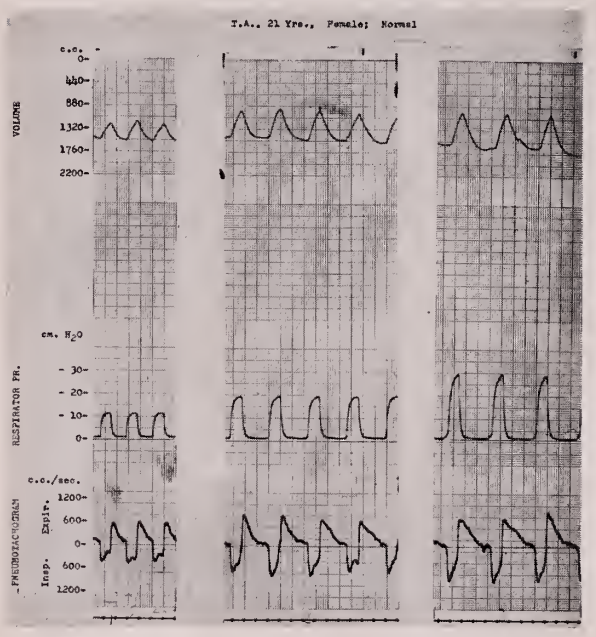

Fig. 3. Ventilatory dynamics in a normal patient with Emerson chest respirator at different pressure settings. The mean flow and tidal volume increase when the pressure gradient in the respirator is increased from 10 to 20 cm. of water. There is, however, no further increase in ventilation with a pressure gradient of 30 cm. of water. It will be noted that the respirator produces considerably lower flow rates than the intermittent positive pressure breathing in figure 2 with comparable pressure settings.

We would stress again that this form of pressure breathing should not be employed in patients under circulatory stress, for example, patients who are on the verge of or in peripheral vascular collapse, with heart failure, or having spinal anesthesia. If IPPB/I is used in the presence of high resistance to air flow, the peak mask pressure is attained quickly, and expiration starts before a useful inspiration has been accomplished. The rapid cycling of the pressure device under these circumstances indicates severe bronchospastic disease, and little can be expected from this type of treatment if the bronchoconstriction cannot be relieved by other means. The same holds true for a patient with a very low pulmonary compliance (stiff lung). The volume which can be delivered by a pressure setting may be insufficient to permit an adequate tidal volume.

In general, we do not use pressures above 15 to 20 cm. of water in the properly selected patient. In order to avoid undue fatigue, the sessions are limited to 15 to 20 minutes and are repeated three or four times daily. In patients with cardiac complications, this form of treatment is used with much caution, and pressures of 12 cm. of water are seldom exceeded.

POSITIVE-NEGATIVE PRESSURE

Inasmuch as low mean mask pressures produce in general less circulatory side effects, the addition of a phase of negative pressure during expiration has been advocated. Most IPPB/I machines are tripped into inspiration by an initial respiratory effort on the part of the patient, thus producing an initial small negative mask pressure. The latter is adjustable in the Halliburton unit. However, IPPB/I as well as intermittent positive and negative pressure breathing (IPNPB) machines and tank or cuirass respirators are regulated primarily by the pressure setting. The volume delivered by a given pressure setting depends upon the physical properties of the patient's lung and thorax. To be sure that a given pressure setting delivers an adequate ventilation, one has to measure minute ventilation, which occasionally may be quite cumbersome. Many failures in this form of treatment, especially in paralytic polio, are simply due to the fact that the patient is chronically underventilated. The ventilatory needs of a patient can be easily determined by a nomogram,[12] and adequate ventilation can be checked by determination of arterial blood gases and hydrogen ion concentration. Cherniack has compared the effects of mechanical exsufflation with the effects of a conventional tank respirator in patients with chronic pulmonary emphysema.[6] Because

the pressures of the conventional tank respirator were set in a fashion which did not allow delivery of adequate minute ventilation, there was no improvement with this form of therapy. On the other hand, an exsufflator (alternating positive and negative pressures) delivering a much larger minute ventilation, produced striking improvement in the pulmonary gas exchange.

It should be stressed again that the clinician using mechanical breathing devices must be certain that the patient is getting an adequate minute ventilation; otherwise the patient derives no benefit from the treatment and might actually get worse. The Engström respirator,[4, 5] which allows accurate regulation of minute ventilation instead of pressure regulation, has proven very successful in Europe where it has been used in the management of patients with poliomyelitis, tetanus, and chronic pulmonary disease.

A special form of this type of therapy has been introduced as exsufflation with negative pressure by Barach and his associates.[2, 3] During inspiration, a positive mask pressure is built up. This is changed over to a negative mask pressure during expiration in a fraction of a second (fig. 4). Because of the instantaneous development of a large transpulmonary pressure gradient, there are achieved high expiratory flow rates which may approach the flow rates of a successful cough. We have found this form of therapy with the multifunction Vent-El-Aire unit* very useful in patients with trapped bronchopulmonary secretions, bronchiectasis, lung abscess, and poliomyelitis.[13, 16] However, in patients in whom a change of the viscoelastic properties of the lungs has occurred (chronic pulmonary emphysema), the development of a large transpulmonary gradient frequently

**Manufactured by the Eliot Medical Plastic Co., Inc., Lynn, Mass.*

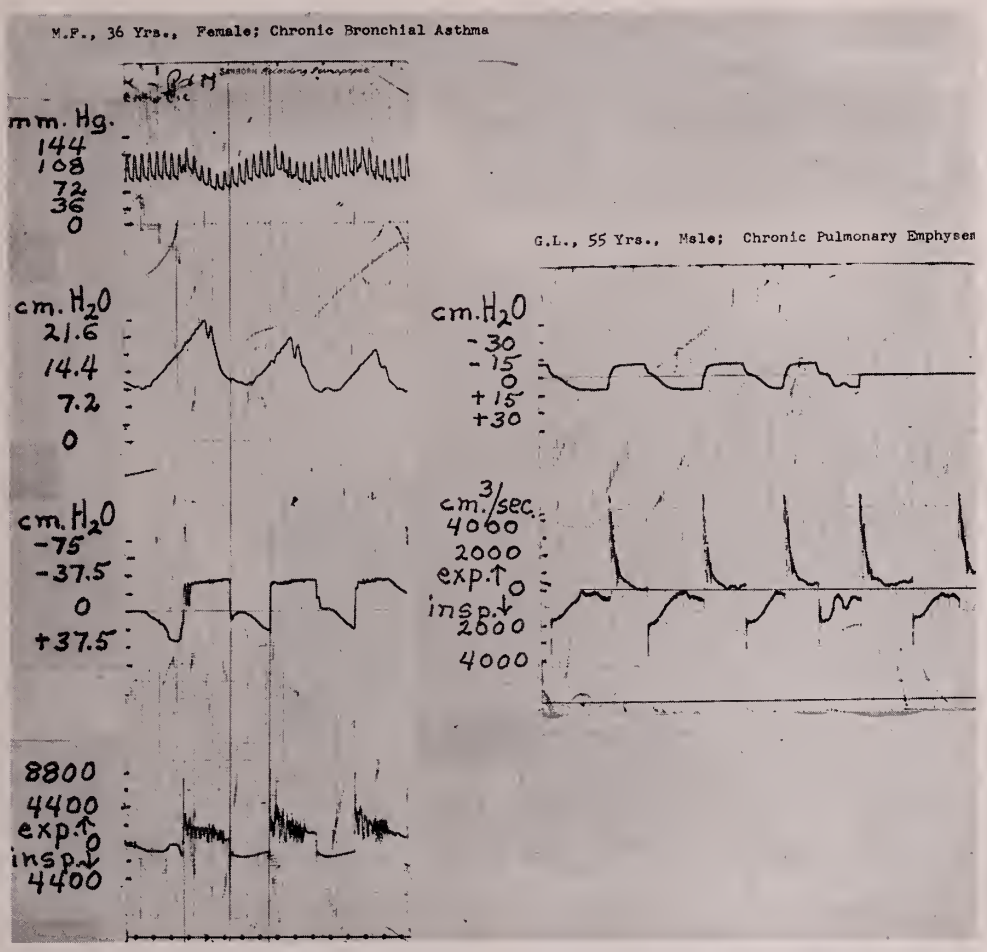

Fig. 4. Influence of exsufflation of pulmonary and circulatory dynamics in a patient with chronic bronchial asthma (left) and chronic pulmonary emphysema (right). Note the high initial expiratory peak flow rates with rapid fall (ball-valving) in the patient with chronic bronchial asthma. Inspired and expired volumes are comparable in this patient while in the patient with chronic pulmonary emphysema the expired volume is markedly less than the inspired volume. The large transpulmonary pressure gradient on the left tracing produces marked circulatory changes, but the flow pattern is not superior to the one on the right, where the pressure gradient is only one-third (Vent-El-Aire unit).

leads to expiratory ball valving or bronchial chattering. In spite of a momentary high expiratory air flow rate, the air trapping during expiration leads to overdistention of the lungs. The disturbances in expiration may be largely prevented in patients with a definite bronchospastic component by administering bronchodilator aerosols before or during positive and negative pressure therapy and may be minimized in the patients with lowered compliance (stiff lungs) by this technique. In these patients, we have observed comparably high expiratory flow rates with much larger expiratory volumes if IPPB/I with bronchodilators was employed.

SUMMARY

The effects of intermittent positive pressure breathing (IPPB/I) and intermittent positive-negative pressure breathing (IPNPB) on circulation and respiration have been recorded. The usefulness of both of these forms of therapy, their limitations and hazards, and equipment for them are described. The clinician must be certain that the patient is getting an adequate minute ventilation at all times.

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Industrial Accidents And the Doctor

H. C. PITTMAN, LL.B.

Austin, Texas

THE NUMBER of industrial accidents occurring in Texas and the resulting claims and controversies under our workmen's compensation laws continues to increase. When, in 1913, we were among the first states to enact workmen's compensation laws, we were far from being an industrial state.

H. C. Pittman is chairman of the Industrial Accident Board.

The number of industrial accidents in Texas, with resulting claims under workmen's compensation laws, continues to increase. As medical evidence is required in each case, more physicians are being called on to submit reports to the Industrial Accident Board. Here are some of the basic facts the doctor should know.

Now it has been estimated that Texas is third in the nation in industrially employed, exceeded only by New York and California, and it is predicted that Texas will be first by the turn of the century. As accidents are reported to the Industrial Accident

Board in increasing numbers, so are the number of claims and controversies being set for hearing increasing with the result that more and more physicians are being called upon to submit reports to this Board. The Board welcomes this opportunity to come before the doctors of Texas and present information about our workmen's compensation laws and procedure.

The Industrial Accident Board office is located on the first floor of the Walton Building, Austin, where reports of injury are received at the rate of 950 per working day and claims for compensation filed at the rate of 250 per day. All hearings are held in Austin. There are three members of the Board, appointed by the Governor for six year terms. One member represents the employees, one the employer, and one is an attorney who serves as chairman of the Board. The volume of claims handled by the Board has more than doubled within the past 10 years. Last year there were 227,099 industrial accidents reported to the Board with a resulting 61,484 controverted claims considered by the Board. There has been no comparable increase in personnel of the Board, and its equipment and facilities are generally recognized as being pitifully inadequate. For example, under the present volume it takes 10 weeks to get a case on a docket and 8 days to answer a letter of inquiry. No statistical records are maintained on the types or causes of accidents, and no cross index system of any sort is established. More than half the controverted claims handled by the Board are settled by compromise settlement agreements before the Board. Almost 90 per cent of the final awards entered by the Board are appealed to a court of law. Last year the Board entered awards in 7,010 claims, notices of intent to appeal were received in 6,912 of these cases, and at least two-thirds of these appealed cases were settled by agreed judgment after suit was filed in the county where the injury occurred.

RULES AND PROCEDURES

In coping with the problems of administering our workmen's compensation laws under present conditions, the Board, under its rule making power, has adopted many administrative rules that are not commonly known by attorneys or doctors who do not regularly practice before the Board. It is estimated that attorneys represent claimants in approximately 20 per cent of the claims filed. Medical evidence is required in all cases. Attorneys' fees are limited by law to 15 per cent of the first $1,000 recovered before the Board and 10 per cent of each additional $1,000. The maximum fees increases to 33⅓ per cent of the amount recovered on appeal from the Board's action.

Hearings are held before the Board in Austin every other Tuesday, with approximately 500 cases set for each hearing date. The great majority of the cases are determined on the basis of written evidence, including narrative medical reports. All oral testimony given at these hearings is given under oath, and a transcript is available. Medical evidence is required from both parties in all cases set for hearing. Cases in which no medical evidence is filed by the claimant or his attorney are routinely cancelled to be reset only upon receipt of an up-to-date narrative medical report. This means that the case must again take its turn upon the docket. Board rules place the burden of supplying medical evidence upon the claimant and give the claimant the right to file medical evidence from a doctor of his choice or accept medical evidence filed by the insurance carrier.

The employer or insurance carrier has the right to designate the treating physician in case of industrial injury and also is liable for emergency first-aid treatment. If it be shown that the medical attention being provided is being furnished in "such a manner that there is reasonable ground for believing that the life, health or recovery of the employee is being endangered or impaired thereby," the workmen's compensation act authorizes the Board to order a change in the treating physician. If the employer has knowledge of the injury and refuses to furnish treatment, the employee has the right to select his own physician and ask the Board to order the payment by the insurance carrier of the expense of this treatment.

The insurance carrier has the right to have a claimant examined by a physician of its choice. Board rules require that request for such examination must show that the claimant has refused to submit to such an examination, must show the necessity for such an examination, and must be filed with the Board at least seven days before the case is set for hearing. The Board then has authority to order the claimant to report to the physician designated by the insurance carrier and to delay the entering of an award until the order is obeyed. In these instances the physician receives a copy of the Board's order and is required to file a copy of his report with the Board within 10 days after the examination is made.

Our workmen's compensation laws restrict the liability of the insurance carrier for "reasonable medical attention, nursing, or chiropractic services" to that authorized within 91 days from date of injury. The liability for hospital services is limited to that authorized within 180 days from date of injury. In actual practice, there are cases in which the insurance carrier voluntarily pays for medical attention and treatment beyond these periods; however, strict liability is limited to the 91 and 180 days periods. If the Board finds that there is a necessity for surgery, that

such surgery is not ordinarily unsafe, and that it will materially benefit the injured party, the Board has authority to order such surgery at the expense of the insurance carrier even though this order is entered outside the statutory 91 day period. When such an order is entered, a copy of the order is furnished the physician at the time it is entered.

The law on this point actually reads as follows:

During the first 4 weeks of the injury, dating from the date of its infliction, the [insurance carrier] shall furnish reasonable medical aid, hospital services, nursing, chiropractic services and medicines. During the fourth or any subsequent week, upon application of the attending physician or chiropractor certifying the necessity therefor to the Board and to the [insurance carrier], the Board may authorize additional medical attention, nursing and chiropractic services not to exceed one (1) week, unless at the end of such additional week the attending physician or chiropractor shall certify to the necessity for another week of medical or chiropractic attention or nursing or so much thereof as may be needed, but in no event shall such services be authorized for a period longer than ninety-one (91) days from date of injury.

The Board is seldom called upon to enforce this proviso of requiring weekly authorization after the first four weeks of treatment in light of present day conditions; however, it is the law and occasionally the point will be raised on a disputed medical bill.

There also is a proviso in our laws with regard to fees and charges made for medical aid, hospital services, or medicines furnished to injured employees. This section provides that all charges shall be "fair and reasonable, shall be subject to the regulation of the Board and shall be limited to such charges as are reasonable *for similar treatment of injured persons of a like standard of living where such treatment is paid for by the injured person himself or someone acting for him. In determining what fees are reasonable, the Board may also consider the increased security of payment afforded by this law*" (emphasis added). The Board relies upon this section in determining the reasonableness of bills submitted for payment.

COMMON QUESTIONS

The Board receives many inquiries from physicians and hospitals throughout the state. Some of the most common ones and the Board's replies perhaps would be of interest to the medical profession:

Question: Who is entitled to copies of my medical report?

Answer: In our opinion this is determined by the principles of ethics of the medical profession and by the question of contract between doctor and patient. Our opinion is that the person employing the physician and paying for the examination or treatment is entitled to the report.

Q.: How do I determine whether the insurance company will accept liability and authorize my services?

A.: If you know which insurance company carries the workmen's compensation insurance for the employer of the injured party, you should get in contact with the local representative of the company for authorization. In many cases the employer can assist in this. If you do not know who the insurance carrier is, you can write the Board giving the name of the employer, and we will give the name of the insurance company.

Q.: When should I submit my bill to the Board?

A.: You should determine from the claimant the date of his hearing before this Board and submit to the Board an itemized statement of your services, together with your bill, showing the type of treatment rendered and necessity therefor, and that it was furnished within the 91 day period. When writing the Board concerning an unpaid bill, always give the full name of the injured employee, the Board number of his claim if possible, the date of his injury, and the name of his employer.

Q.: If the Board denies the claim of the injured party and denies my bill, what are my rights?

A.: You have the right to appeal the Board's award as to your medical bill to a court having jurisdiction. This is also true in the event the Board does not allow the full amount of your bill and you desire to appeal. Notice of intention to appeal from an award of the Board must be filed with the Board within 20 days from date of the award and then the appeal perfected by a suit filed in a court of law within another 20 days. You should consult your attorney in this regard. Either party has the right to appeal from a Board's award, and if the Board allows your bill as submitted and the insurance carrier serves notice of intention to appeal, you will be notified of this action.

Q.: I treated an injured worker and later found that his claim was heard and determined by the Board without my knowledge and without action being taken on my bill. What are my rights?

A.: You have the right to ask the Board to set the case for hearing on the question of your medical bill. The case will be set, all parties notified, and the Board will enter a formal award as in cases previously described.

Q.: What type of medical reports does the Board require?

A.: The Board requires narrative reports, signed by the physician, establishing a definite prognosis and percentage of disability, if any. Charts should accompany reports describing amputation. Expression of the degree of disability should be given in terms of the part or parts of the body affected and

should be limited to the disability resulting from the industrial injury in question. A review of Section 12, Article 8306, relating to compensation payable for injuries to specific members of the body would be helpful in understanding how the degree of disability should be expressed for purposes of calculating benefits due under the Texas workmen's compensation act. For those desiring more information concerning the payment of compensation for industrial injuries, pamphlet copies of the workmen's compensation act are available.

CONCLUSION

Of course any attempt to cover this broad field in a single article is impossible. Many problems are faced by the Board in attempting to administer the workmen's compensation laws of our state with the sudden growth in the number of accidents reported, not the least of which is the difficulty in giving prompt attention to the questions asked by the members of the medical profession as they serve in individual cases. The facilities and number of personnel available for processing claims filed are extremely limited.

Every indication points to a thorough study of this problem of statewide importance by the current session of the Legislature, and the Board seeks the assistance of physicians in bringing this problem to the attention of their legislators. Ask them to visit the Board and see firsthand what is going on.

The Board sincerely encourages any physician to make inquiry whenever it can be of assistance and assures the medical profession of its desire to serve doctors as fairly and as quickly as possible.

♦ Mr. Pittman, Industrial Accident Board, Walton Building, Austin.

Device Making TB Tests Safer

A device that makes testing sputum for tuberculosis germs in the hospital laboratory safer and easier has been developed by a Veterans Administration bacteriologist. It is an agitator for sputum specimens, made from a new kind of paint shaker by Abraham L. Rosenzweig at McGuire Veterans Administration Hospital in Richmond, Va., and the Veterans Administration has adopted the device as a standard item for its 173 hospitals.

US Health Expenses Surveyed

The American people spent more than $11.8 billion for personal health services during 1956, Health Information Foundation reports. More than 25 per cent of this sum, or almost $3 billion, was covered by voluntary health insurance.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Dallas, April 27-May 1, 1957. Dr. Milford O. Rouse, Dallas, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, New York, June 3-7, 1957. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

APRIL

American College of Physicians, Boston, April 8-12, 1957. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American Dermatological Association, Belleair, Fla., April 13-17, 1957. Dr. Carroll S. Wright, Philadelphia, Pres.; Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.

American Proctologic Society, New Orleans, April 24-27. Dr. Rufus C. Alley, Lexington, Ky., Pres.; Dr. Karl Zimmerman, 3500 Fifth Ave., Pittsburgh 13, Secy.

Association of American Physicians and Surgeons, Delegates and Assembly, Miami Beach, Fla., April 25-27, 1957. Dr. Charles W. Pavey, Columbus, Ohio, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

Southwestern Surgical Congress, Wichita, Kan., April 15-17, 1957. Dr. John V. Goode, Dallas, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Texas Air-Medics Association, Dallas, April 28-29, 1957. Dr. W. A. Ostendorf, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Chapter, American College of Chest Physicians, Dallas, April 28, 1957. Dr. Walter C. Brown, Corpus Christi, Pres.; Dr. L. M. Shefts, 510 Moore Bldg., San Antonio, Secy.

Texas Chapter, American Association of Public Health Physicians, Dallas, April 28, 1957. Dr. W. V. Bradshaw, Jr., Fort Worth, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Dermatological Society, Dallas, April 28-29, 1957. Dr. Thomas L. Shields, Fort Worth, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association, Dallas, April 28, 1957. Dr. Edwin L. Rippy, Pres.; Dr. Richard E. Nitschke, 1702 Nix Professional Bldg., San Antonio, Secy.

Texas Geriatrics Society, Dallas, April 30, 1957. Dr. Wendell D. Gingrich, Galveston, Pres.; Dr. J. O. S. Holt, Jr., 3707 Gaston Ave., Dallas, Secy.

Texas Heart Association, Dallas, April 28, 1957. Dr. D. D. Warren, Waco, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Industrial Medical Association, Dallas, April 30, 1957. Dr. V. C. Baird, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neuropsychiatric Association, Dallas, April 28, 1957. Dr. John L. Otto, Galveston, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, Dallas, April 30, 1957. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Dallas, April 29, 1957. Dr. John J. Hinchey, San Antonio, Pres.; Dr. Margaret Watkins, 3629 Fairmount, Dallas, Secy.

Texas Society of Anesthesiologists, Dallas, April 28, 1957. Dr. Charles R. Allen, Galveston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Dallas, April 28, 1957. Dr. John McGivney, Galveston, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Pathologists, Dallas, April 30, 1957. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.

Texas Society of Plastic Surgeons, April 27, 1957. Dr. Thomas D. Cronin, Houston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, Dallas, April 1-2, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Dallas, April 28, 1957. Dr. Russell Holt, El Paso, Acting Pres.;Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.

Texas Tuberculosis Association, Fort Worth, April 4-6, 1957. Dr. Howard T. Barkley, Houston, Pres.; Mrs. J. V. Cooper, Waxahachie, Secy.

United States-Mexico Border Public Health Association, San Antonio, April 9-12, 1957. Dr. Guillermo Soberanes, Hermosillo, Sonora, Mexico, Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

Seventh District Society, Austin, April 7, 1957. Dr. Leslie C. Colwell, Austin, Pres.; Dr. Robert N. Snider, 2410 Rio Grande, Austin, Secy.

Ninth District Society, Navasota, April 3, 1957. Dr. C. Marius Hansen, Navasota, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, 2, Secy.

Eleventh District Society, Jacksonville, April 10, 1957. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.

State Tumor Conference, Wichita Falls, April 3, 1957. Mrs. Chester Robinsin, Wichita County Medical Society Tumor Clinic, Wichita Falls, Secy.

Texas State Board of Examiners in Basic Sciences, next examination, Austin, Galveston, and Houston, April 12-13. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

MAY

American Association for Thoracic Surgery, Chicago, May 4-7, 1957. Dr. Cameron Haight, Ann Arbor, Mich., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Hot Springs, Va., May 1-3, 1957. Dr. Archie L. Dean, New York, Pres.; Dr. John A. Taylor, 2 E. 54th St., New York 22, Secy.

American College of Chest Physicians, New York, May 29-June 2, 1957. Dr. Herman J. Moersch, Rochester, Minn., Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American Gastro-Enterological Association, Colorado Springs, May 17-18, 1957. Dr. Sam A. Wilkinson, Jr., Boston, Pres.; Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secy.

American Gynecological Society, Hot Springs, Va., May 27-29, 1957. Dr. Norman F. Miller, Ann Arbor, Mich., Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Ophthalmological Society, Hot Springs, Va., May 30-June 1, 1957. Dr. Frederick C. Cordes, San Francisco, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Psychiatric Association, Chicago, May 13-17, 1957. Dr. Francis J. Braceland, Hartford 2, Conn., Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Surgical Association, Chicago, May 8-10, 1957. Dr. Loyal Davis, Chicago, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association, Pittsburgh, May 6-9, 1957. Dr. George C. Prather, Brookline, Mass., Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

National Tuberculosis Association, Kansas City, May 5-10, 1957. Dr. Howard W. Bosworth, Los Angeles, Pres.; Mrs. Morrell DeReign, 1790 Broadway, New York 19, Secy.

Southwest Allergy Forum, Fort Worth, May 5-7, 1957. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.

Southwestern Society of Nuclear Medicine, Houston, May 4-5, 1957. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Texas Hospital Association, Houston, May 14-16, 1957. Mr. H. M. Cardwell, Lufkin, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. W. B. Sherman, New York, Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of General Practice. Dr. J. S. De Tar, Milan, Mich., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Grosse Point 30, Mich., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists. Dr. Ethan Allen Brown, Boston, Pres.; Dr. Giles A. Koelsche, Mayo Clinic, Rochester, Minn., Secy.

American College of Gastroenterology, Boston, Oct. 20-23, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Radiology, Feb. 7-8, 1958. Dr. Ira H. Lockwood, Kansas City, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Congress on Obstetrics and Gynecology, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, 116 S. Michigan Ave., Chicago 3, Chm.

American Heart Association, Chicago, Oct. 25-29, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 17-19, 1957. Dr. H. Houston Merritt, New York 32, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Carmel, Calif., June 17-19, 1957. Dr. Daniel C. Darrow, Mission, Kan., Pres.; Dr. A. C. McGuinness, 1427 I St., N.W., Washington 5, D. C., Secy.

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 20-21, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.

Southwestern Medical Association, El Paso, Oct. 9-11, 1957. Dr. Celso Stapp, El Paso, Pres.; Dr. Russell L. Deter, 1501 Arizona St., El Paso, Secy.

Tri-State Medical Assembly, Shreveport, September, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Brady, Pres.; Mr. C. H. Rugeley, Wharton, Secy.
Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 308 W. 15th, Austin, Executive Secy.
Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.
Texas Association of Blood Banks, New Orleans, 1957. Dr. C. D. Fitzwilliams, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.
Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.
Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.
Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.
Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.
Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.
Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murpby, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.
Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. J. R. Riley, Corpus Christi, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.
Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Wortb, Secy.
Texas Society for Mental Health. Dr. Carmen Miller, Dallas, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.
Texas Society of Opbthalmology and Otolaryngology, Dallas, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.
Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.
Second District Society, Big Spring, 1957. Dr. Clyde Thomas, Jr., Big Spring, Pres.; Dr. Nell W. Sanders, P. O. Box 191, Big Spring, Secy.
Third District Society. Dr. A. G. Barsh, Lubbock, Pres.; Dr. William Klingensmith, 708 Monroe St., Amarillo, Secy.
Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.
Fifth and Sixth Districts Society, Corpus Christi, July 5-6, 1957. Dr. James C. Sharp, Corpus Christi, Pres.; Dr. Winston E. Riley, 2400 Morgan, Corpus Cbristi, Secy.
Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.
Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Ricbard O. Clements, 715 Main, Liberty, Secy.
Twelftb District Society, July 9, 1957. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.
Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.
Fifteenth District Society. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. Jobn D. Gleckler, 211 N. Fannin, Denison, Chm.
Dallas Southern Clinical Society. Dr. Howard C. Coggesball, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.
New Orleans Graduate Medical Assembly. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 626 Maison Blanche Bldg., New Orleans 16, Secy.
North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10tb, Wicbita Falls, Chm.
Oklahoma City Clinical Society Conference, Oklaboma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklaboma City 2, Executive Secy.
Postgraduate Medical Assembly of South Texas, Houston, July 15-17, 1957. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.
International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

Board Examinations

Texas State Board of Medical Examiners, Fort Worth, June 24-26, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

MEDICOLEGAL NOTES

Physician Not Guarantor

The statement that in the absence of a special contract, a physician or surgeon is never considered as warranting a cure or guaranteeing that his treatment will result in a benefit to his patient was made in the last issue of the *Journal.* Then I proceeded to discuss the problems of a special contract which might result in the physician or surgeon warranting or guaranteeing his services to the patient.

In this article will be considered some of the reasoning of the courts in holding that a physician or surgeon is not a warrantor or guarantor in the absence of a special contract.

This issue was first raised in Texas in 1858 in the case of Graham v. Gautier.* This case arose when the physician sued Graham for his fee for attendance upon the slaves of Graham. Graham admitted that the services had been rendered, but alleged that as a result of the unskillful and negligent treatment by Dr. Gautier, 10 slaves had died. Graham was asking for the value of the slaves who had died.

The testimony showed that the slaves were "taken sick in Matagorda County, with typhoid fever, and then the measles upon that." Because of the contagious nature of their sickness, they apparently were moved frequently and often housed in inadequate quarters. It seems from the testimony that the movement and selection of quarters was on the insistence of the owner of the slaves.

There seemed to be some conflict in the testimony as to the care and treatment given to the slaves by Dr. Gautier, but the court in its opinion made the following statement which forms the initial basis for the law in Texas today as to whether the physician or surgeon is to be considered a warrantor or guarantor:

> The duty and responsibility of a physician is well stated by a Judge in Pennsylvania: "It is a rule of law, that a medical practitioner *never insures the result,* but simply engages that he possesses a reasonable degree of skill, such as is ordinarily possessed by a profession generally, and to exercise that skill with reasonable care and diligence; and, again, to exercise his best judgment, but is not responsible for a mistake of judgment" (emphasis added).

This case sets forth the idea that the physician or surgeon never insures the results (although we have seen that such might be the case in the presence of a special contract), and the more recent cases substantiate the holding. Examples are such cases as Turner v. Stoker,† in which the court held that:

> The physician is not an insurer and does not warrant a cure, but he impliedly contracts that he possesses and he is required to use and exercise that degree of skill and care which physicians practicing in similar

*21 Tex. 111.
†289 S.W. 190.

locations ordinarily possess, but he does not impliedly warrant a cure and can be held as a guarantor only by virtue of an express agreement. Lee v. Moore, 162 S.W. 440; Ely v. Wilbur (N. J.), 10 A. 358.

Another case is Gifford v. Howell,‡ in which the court stated that:

> While the rule is that a *physician does not insure results,* he is required to have such reasonable skill as the profession generally possesses and to exercise such skill with reasonable care and diligence (emphasis added).

The question then arises as to what degree of care and skill is required of the physician by our courts. To some extent, the care and skill required is set out in some of the previously cited cases, but to point out better what measure is required of the physician, the following is quoted from the court's opinion in the case of Turner v. Stoker:†

> The family doctor is one of the most confidential persons the public has to deal with. His responsibility is one of the greatest of professions. When we are sick or injured, we place our life in his hands, and his advice and treatment may mean life or death. It is quite natural that he should be required to exercise that degree of skill, learning, and care which are ordinarily possessed and exercised by other such members of his profession in good standing in similar communities and under like or similar circumstances. He is not chargeable with negligence or failure to use his best skill and ability but only that care and skill exercised generally by physicians in same or similar communities.

The Court of Civil Appeals stated in Bowles v. Bourdon,§ which was subsequently affirmed by the Supreme Court of Texas, that:

> A physician's legal liability is measured by the fact that he merely engages that he has that reasonable degree of learning and skill which is possessed by others of his profession in the same locality, or by the average physician under the same or similar circumstances, and that he will exercise that skill and learning with reasonable care and diligence. In other words, exercising a high degree of care is not required of an attending physician; all that can be expected is the use of ordinary care, skill and diligence.

From the foregoing, it is clear that in the absence of a special contract, a physician is never considered as warranting a cure or guaranteeing that his treatment will result in benefit to the patient. Also, the quotations from the last two cited cases will give an indication of the care and skill that will be required of the physician by our courts.

—PHILIP R. OVERTON, Austin.

MEDICAL MEETINGS

Dentists Plan Pain Symposium

The American Academy of Dental Medicine will hold its eleventh annual meeting in Boston May 29-June 1. Outstanding clinicians will present various aspects of the nature and causation of pain arising in the oral cavity, in adjacent areas, and in the remainder of the body, and the program is planned to be of interest to the medical as well as the dental profession. Reservations and additional information can be obtained from Dr. Arthur Gold, convention chairman, 26 Maple Street, Springfield 3, Mass.

‡*119 S.W. (2d) 578.*
§*213 S.W. (2d) 713.*

Pan American Cancer Congress Ahead

The United States Department of State has invited the ministers of health of the 21 nations of the western hemisphere to the First Pan American Cancer Cytology Congress, to be held April 25-29, in Miami Beach, Fla. It will also be of interest to American researchers, medical practitioners, specialists, public health workers, and educators, who are invited to attend.

The Congress will present the latest advances in cancer detection, in microbiology, radioisotopes, electron microscopy, and in the biology of cancer. Five clinical and cytology sessions and four basic science sessions will be included in the program. Climax of the session will be presentation of the $1,000 Wien Awards to scientists making most outstanding contributions to cancer cytology during 1956-1957.

Sponsors are the Cancer Cytology Foundation of America, Inc., Cancer Institute at Miami, Southern Society of Cancer Cytology, and University of Miami.

Registration fee is $15 with no fee for attending wives. Further information may be received from Dr. J. Ernest Ayre, President, in care of the Cancer Institute at Miami.

Student AMA to Meet May 3-5

More than 3,000 medical students are expected to attend the seventh annual meeting of the Student American Medical Association to be held May 3, 4, and 5 in Philadelphia.

Secretary of Health, Education, and Welfare Marion B. Folsom is the top speaker for the program, which includes a scientific presentation by Dr. C. P. Rhoads, cancer researchist from the Sloan-Kettering Institute, New York. A panel on "General Practice—Specialty; Trends in Practice" will include Dr. Kenneth Babcock, director, Commission on Accreditation, Chicago; Dr. J. S. De Tar, president, American Academy of General Practice, Milan, Mich.; Dr. I. S. Ravdin, chairman, Board of Regents, American College of Surgeons, Philadelphia; and Dr. Edward L. Turner, secretary, Council on Medical Education and Hospitals, American Medical Association, Chicago. Past AMA President, Dr. Elmer Hess, Erie, Pa., will serve as moderator.

The introduction of student research papers is an addition to the Philadelphia meeting.

Nuclear Medicine Society to Meet

The second annual meeting of the Souhtwestern Society of Nuclear Medicine will be held May 4-5 in Houston. Practical demonstrations of radioisotope techniques; panel discussions on radioisotopes versus chemotherapy in blood dyscrasias and in malignant effusions, federal and state radiation protection codes, and pulse height discrimination technique; and papers covering a variety of topics are scheduled.

Details may be had from Dr. Herbert C. Allen, Jr., program chairman, Radioisotope Department, Methodist Hospital, Houston 25.

Goiter Specialists to Meet

Papers and discussions dealing with the physiology and diseases of the thyroid gland will constitute the program when the American Goiter Association holds its annual session May 28-30 in New York City. Further information may be obtained from the secretary, Dr. John C. McClintock, 149½ Washington Avenue, Albany 10, N. Y.

EDUCATION

Postgraduate Courses

Management of Common Dermatologic Problems, Houston, May 3-31.—Given by the University of Texas Postgraduate School of Medicine and Baylor University College of Medicine, this is a five weeks course to be held each Friday night from 7 to 9 p. m., beginning May 3 and ending May 31. The place will be M. D. Anderson Hospital and Tumor Institute, the tuition fee $10, the credit hours 10. Applications are available from the University of Texas Postgraduate School of Medicine, Texas Medical Center, Houston 25.

Pediatric Symposium, Houston, May 8-11.—Baylor University College of Medicine's Department of Pediatrics and the Division of Maternal and Child Health of the State Department of Health are sponsoring this symposium at the Texas Children's Hospital. Seven out-of-state physicians will speak. Details are available from Dr. Russell J. Blattner, Chairman, Department of Pediatrics, Baylor University College of Medicine, Houston.

Gastroenterology, Denver, May 13-15.—A three-day postgraduate course presented at the University of Colorado School of Medicine, the series will offer a broad and intensive review of present day concepts and pertinent recent developments in the field. The faculty will include 28 nationally-known guest physicians, a fact made possible by cooperation of the American Gastroenterological Association, which will hold its annual session in Colorado Springs immediately following the course. For details, write the Office of Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20.

Pediatric Advances for Pediatricians and General Practitioners, Philadelphia, May 27-31.—This course will be conducted by the staff of the Children's Hospital of Philadelphia, in collaboration with the Department of Pediatrics of the University of Pennsylvania and the staff of the Camden Municipal Hospital. Tuition is $110. Dr. Irving J. Wolman, Children's Hospital, 1740 Bainbridge Street, Philadelphia 46, can provide further details.

Practical Pediatric Hematology, Philadelphia, June 3-5.—The short refresher course will be conducted by Dr. Irving J. Wolman and other members of the Hematology Department, Children's Hospital, Philadelphia, under auspices of the Graduate School of Medicine, University of Pennsylvania. Tuition is $75. Dr. Wolman, 1740 Bainbridge Street, Philadelphia 46, can give further information.

Blood Group Incompatibilities and Erythroblastosis Fetalis, Philadelphia, June 6-7.—Dr. Neva Abelson and Dr. Thomas R. Boggs, Jr., of the Philadelphia Serum Exchange of the Children's Hospital, will conduct the course, also being presented under auspices of the Graduate School of Medicine, University of Pennsylvania. Tuition is $50, and details may be received from Dr. Irving J. Wolman, Children's Hospital, 1740 Bainbridge Street, Philadelphia 46.

Post Graduate Symposium on the Basic Sciences Related to Anesthesiology, Pittsburgh, June 10-14.—Presented by the University of Pittsburgh School of Medicine's Section on Anesthesiology, in cooperation with the Departments of Anesthesiology of the St. Francis, Allegheny General, Mercy, and Medical Center Hospitals, this course will be limited to 50 participants. Registration fee is $25. Full particulars should be obtained from: Chairman of the Committee on Graduate Medical Education, University of Pittsburgh School of Medicine, 3941 O'Hara Street, Pittsburgh 13.

Management of Chronic Kidney Disease, New York, June 24-25.—New York University Post-Graduate Medical School will present this full-time course under direction of Dr. Lawrence G. Wesson. It will deal with selection and interpretation of clinically available tests for the estimation of renal function. Advantages and disadvantages of each test will be considered. For details, write to the office of the Associate Dean of the University, 550 First Avenue, New York 16.

Management of Hypertension, New York, June 26-27.—Under the direction of Dr. J. Marion Bryant, this course will be concerned with the presentation, with appropriate clinical demonstrations, of the following subjects: brief summary of etiologic theories, psychological factors, the natural course, relative significance of blood pressure levels, eye grounds, cardiac silhouette, electrocardiogram, renal function, significance of obesity and arteriosclerosis, and unilateral renal disease. Emphasis will be placed upon use of hypotensive drugs. Other therapeutic measures, such as sympathectomy, nephrectomy, and diet therapy will be reviewed. Further information may be received from the Associate Dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16.

Occupational Medicine, New York, September 16-November 8.—Designed for physicians engaged in the practice of medicine in industry, this course is a full-time eight-week one offered by the New York Post-Graduate Medical School. Course content will cover preventive medicine, administrative medicine, occupational diseases, industrial hygiene. It is aimed at meeting the need for specialized training in industrial medicine. Instruction will be supplemented with field trips to industrial plants, governmental agencies, and union health centers, and opportunity will be given to attend medical, surgical, and clinical-pathological conferences in the New York University-Bellevue Medical Center. More information is available from the Associate Dean of the School, 550 First Avenue, New York 16.

UT Names Committee of 75

As the University of Texas prepares to observe its seventy-fifth year of service to the state, the Board of Regents designated 1958 for the determining of a broad outline of University development for the next 25 years.

Major responsibility for charting the objectives has been accepted by "The Committee of 75," which represents all state senatorial districts and a cross-section of Texas interests. Meeting for the first time in Austin on April 13, the group included: Dr. L. S. Oates, Center; Dr. Robert W. Kimbro, Cleburne; Dr. Kleberg Eckhardt, Corpus Christi; Dr. Herbert F. Poyner and Dr. William Seybold, Houston; and Dr. H. Frank Connally, Jr., Waco.

University of Texas Medical Branch

Dr. Wendell M. Stanley, Nobel Laureate from the University of California, and also professor of biochemistry and director of the virus laboratory of the University of California in Berkeley, gave the Meyer Bodansky Memorial Lecture at the University of Texas Medical Branch, Galveston, on March 11.

Dr. Michio Okamoto, professor of anatomy, Kobe Medical College and Mie Prefecturae University, Japan, spoke at the Medical Branch April 1 on "Recent Observations on the Cultivation of the Reticular Formation."

Dr. Sam L. Clark, Jr., assistant professor of anatomy, Washington University, St. Louis, also was a recent guest.

Another recent guest in Galveston was Col. Arthur B. Tarrow, chief of the anesthetization and operating section, Lackland Air Force Base, San Antonio.

Physical Medicine Prize Announced

To stimulate interest in the field, the American Congress of Physical Medicine and Rehabilitation will award annually a prize for an essay on any subject relating to physical medicine and rehabilitation. The contest, while open to anyone, is primarily directed to medical students, interns, residents, graduate students in the preclinical sciences, and graduate students in physical science and rehabilitation.

For further details of the competition, which closes June 1, query the American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago 2.

From Rockefeller: Allergy Fellowships

The Board of Trustees, American Foundation for Allergic Diseases, announces availability of three fellowships in research and clinical allergy for a period of two years each, carrying a stipend of $4,500 the first year, $4,750 the second, and a total of $750 for laboratory and travel expenses during the period. Funds have been made available by John D. Rockefeller Jr. in a grant to the foundation.

Applications must be received by May 10, and notification of action will be sent to the candidate by June 10. Further information is available from Dr. Robert A. Cooke, chairman, Scientific and Educational Council, American Foundation for Allergic Diseases, 274 Madison Avenue, New York 16.

New York-Bellevue Physical Medicine Residencies

Approved residencies in physical medicine and rehabilitation are available at New York University-Bellevue Medical Center beginning July 1. American graduates with approved internships are eligible for OVR Fellowship, starting at $3,400 per year with added dependency allotment. Immediate application should be made to Dr. Joseph G. Benton, Institute of Physical Medicine and Rehabilitation, 400 East 34th Street, New York 16.

Ophthalmology Fellowships Available

Six additional fellowships for residents in ophthalmology, to begin July 1, have been announced by the Guild of Prescription Opticians of America, Inc. Each is for $1,800, payable in monthly stipends over the three-year residency period. Applications must be in by May 15. Forms and information may be received by writing to Fellowships, Guild of Prescription Opticians of America, Inc., 110 East 23rd Street, New York 10.

Chest Physicians Slate New York Conference

Formal presentations, symposiums, round-table luncheon discussions, seminars, and motion pictures will be features of the twenty-third annual meeting of the American College of Chest Physicians, to be held May 29-June 2 at the Hotel Commodore in New York City. Fireside Conferences, begun in 1955, have proved so popular that they will be repeated, with 50 experts leading discussions. Copies of the program may be obtained from the college officers, 112 East Chestnut, Chicago 11.

Texas and Nation Note Medical Education Week

Medical societies in Texas and across the nation are joining in the second annual observance of Medical Education Week April 21-27, when the impressive story of the accomplishments of United States medical schools is told.

Purpose of the observance is to focus the attention of the American people on the national importance and indispensability of medical education. Its national sponsors are the Association of American Medical Colleges, American Medical Association, American Medical Education Foundation, National Fund for Medical Education, Student American Medical Association, and Woman's Auxiliary to the American Medical Association.

In Texas, the Dallas County Medical Society is participating in a variety of ways. Two special medical sections will be published by Dallas newspapers on Sunday, April 21. There will be a proclamation by the mayor of the city, radio and television time has been arranged for, service clubs will be addressed by medical speakers, and the *Dallas Medical Journal* carried a pertinent editorial in its March issue. Chairman of the observance there is Dr. M. T. Jenkins.

Cancer Foundation Gift

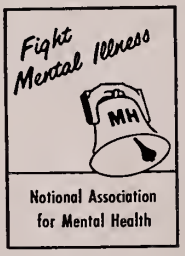
The University of Texas has received a $100,000 gift from the M. D. Anderson Foundation for the University Cancer Foundation. The Cancer Foundation operates at the M. D. Anderson Hospital and Tumor Institute, a component unit of the University, and is dedicated generally to strengthening the hospital's educational and research program.

This gift represents the first of five annual payments under a grant of $500,000 from the Anderson Foundation, one of the hospital's chief benefactors.

OF GENERAL INTEREST

Doctors, Drugs Gaining On Mental Illness

More than 16,000,000 Americans—1 in every 10—are suffering from a mental or emotional disorder, a study recently concluded by the Commission on Chronic Illness reveals. One out of every 10 children born each year will need to go to a mental hospital sometime during his life-



time, and there are more people (175,000) in mental hospitals right now than in all other hospitals combined.

Of the 20,000,000 patients in general hospitals last year for physical ailments, about 6,000,000 had illnesses caused by emotional disturbances, and mental disorder is an impor-

tant factor in 50 to 70 per cent of the medical cases treated by physicians.

Yet—the chances of recovery today are far greater than they were just a few years ago, recent statistics show. For instance, schizophrenic patients have at least a 60 per cent chance of partial or total recovery providing they get early and adequate treatment. Involutional psychosis and manic-depressive psychosis (mental disorders of middle age) show 65 and 75 per cent recovery rates respectively. In a well-staffed, well-equipped mental hospital, 70 per cent of patients improve and recover, although in the average hospital the rate goes down to 45 per cent.

For the first time, during 1955, evidence pointed to the likelihood of a break in the steep 25-year climb of the number of mental patients. Several state hospitals report that the discharge of mental patients has caught up with, or even exceeded, new admissions. During 1955, the number of resident patients increased by only 6,000 as compared to an average annual rise of 12,000 in the previous 10 years.

Beginning with Mental Health Week, April 28-May 4, and continuing throughout the month of May, workers for the National Association for Mental Health will be ringing doorbells throughout the country for voluntary contributions. Money given to the association is used to finance personal services for mental patients and their families, support research, establish community clinics, train personnel, support campaigns for better mental hospitals, and educate the public on the prevention of mental illness. Except for a very small percentage, all the money raised remains in the states and communities where it is obtained for the implementation of their programs.

Blood Banking Receives Current Consideration

Blood banks, their services and problems, are receiving wide consideration on local, regional, and national levels in early 1957, as the Joint Blood Council and allied groups strive to organize facilities and do research on the subject of blood banking for peace and war.

Equipped with a $50,000 Public Health Service grant, the Joint Blood Council on March 1 launched its nationwide survey of blood transfusion services. The two-year census has as its objectives the preparation of standards for accreditation of blood banks, development of a glossary of terms, inventory of research in blood and blood derivatives, and the assembling and analysis of needed data. As a preliminary to the main study, the council conducted a postcard survey of some 10,000 hospitals, clinics, and other groups asking, among other things, whether blood was obtained from the Red Cross, a community agency, or some other facility.

Conceived as a policy-deliberating, not operating body, the Joint Blood Council has five member organizations—American Medical Association, American Hospital Association, American National Red Cross, American Society of Clinical Pathologists, and American Association of Blood Banks. Its purpose is to stimulate research in blood and blood banking and to coordinate nationally efforts in this field.

In December, 1956, 26 federally licensed blood banks which are institutional members of the AABB, indicated readiness to participate in, and volunteered to collect 211,748 pints of blood over a 14-month period for, a project planned jointly last fall by the Federal Civil Defense Administration and the Red Cross: collection of fresh blood to be converted into units of serum albumin.

Activities of the AABB in the national scope resulting from its annual meeting in Boston, Mass., last fall include: (1) setting up of a certification and training program for blood banking technologists after January 1, 1960, plus a "grandfather clause" for participation of those already in the field; (2) designation of blood banks which may act in the capacity of training schools for technologists, through cooperation with the Registry for Technologists; (3) development of some special publications devoted to blood banking and planning of others; (4) development of a set of minimal standards for blood transfusion by the Committee on Standards of the AABB; (5) designation of regional reference laboratories available on a voluntary basis to cope with two major blood banking problems, the identification of unusual antibodies against red blood cells capable of causing incompatible transfusions and procurement of unusual blood types for special cases; (6) operation of a National Clearing House for the exchange of blood and blood credits, now with five district offices in San Francisco, Chicago, Dallas, Jacksonville, and New York.

Of regional significance is a decision of the Texas Association of Blood Banks at its November 30, 1956, annual session in Dallas to expand this association into a South Central Association of Blood Banks to include the states of Oklahoma, Arkansas, Mississippi, Louisiana, and New Mexico. These, with Texas, make up the South Central District of the National Clearing House program for blood banks.

During 1956, the Texas Association of Blood Banks Clearing House became a solvent operation, handled more than 12,000 transactions with blood credits and exchange, and continued to grow. Expansion of the association will open the way to doubling the number of participants in the clearing house, increasing official transactions substantially, and to increased efficiency and effectiveness of the entire operation.

Dr. E. E. Muirhead, Dallas, representing the Committee on Blood Banks at a meeting of the Texas Medical Association Executive Council in January, 1957, presented a resolution, which was adopted, reiterating that "it is highly desirable that matters dealing with blood banking, particularly of national scope, be considered and developed in conjunction with medical doctors active in organized medicine who by experience and practice are also active in the field of blood banking."

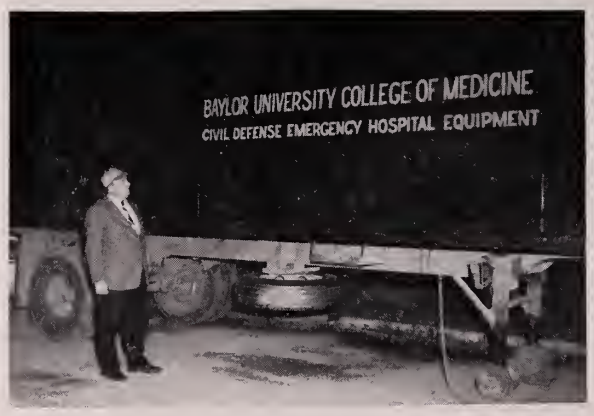
Wrong People Are Bearing Indigent Care Burden, Snoke Says

The self-paying patient in some hospitals is being unfairly taxed over the cost of his own care to help finance health personnel education and hospital care for the indigent and medically indigent, says Dr. Albert W. Snoke, president of the American Hospital Association, in the March 1 issue of *Hospitals*.

Paying patients and hospital employees are both shouldering some of the burden unfairly, he asserts, the latter by getting a lower wage than that received by their counterparts in the community who come to the hospital and get a lower hospital charge at the expense of the hospital employee.

Care for the indigent should be met by tax funds, Dr. Snoke believes. He advocates that hospitals collectively and individually should (1) receive current full cost from government agencies for both inpatient and outpatient welfare care; (2) receive supplemental funds from society in general; (3) receive current full cost from third-party agencies such as Blue Cross and other insurance agencies; and (4) spread cost for educational purposes over the entire population with emphasis upon those health groups that profit in the product without sharing in the expense of work.

Operation



Dr. Ralph E. Gray, Lake Jackson, chairman of the Texas Medical Association's Committee on National Emergency Medical Service, looks at a van containing equipment and supplies for a 200 bed emergency hospital. This hospital was set up in West Columbia; a second was set up in Arcadia.

"H-Bomb War Begins—Houstonians Flee Homes As City Threatened."

So read the headlines of a special newspaper issued to introduce—with "closed television" documentation and short-wave radio alerts—"Operation Rebound." An estimated 2,000 persons voluntarily participated in this first field trial by civilians of a 200 bed emergency hospital unit designed and owned by the Federal Civil Defense Administration, the trial being held March 29 in Harris, Brazoria, and Galveston Counties with Matagorda and Wharton Counties assisting.

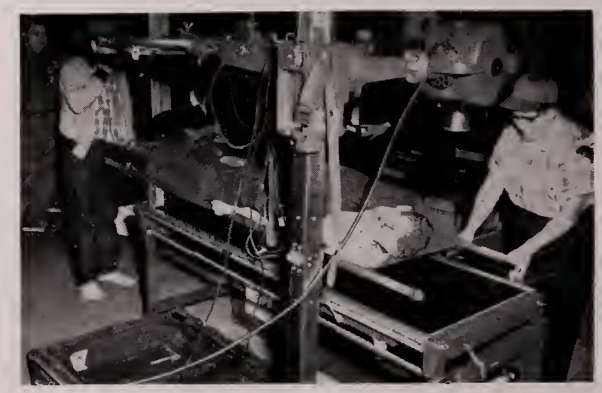
About 185 persons met in conference during the day at Baylor University College of Medicine, Houston, to hear a realistic discussion of public health problems—radiation, communicable disease, biological warfare, and chemical warfare—that might arise in case of disaster. This discussion by United States Public Health Service experts brought in from over the nation was followed by presentation of medical care problems to be anticipated, particularly with use of the emergency hospital unit to be tested.

Following appropriate alerts and with constant radio communication between key points, the field trial got under way during the afternoon with removal of two emergency hospital units in their individual vans from Houston to Arcadia and West Columbia, respectively. By nightfall, medical student evacuees with lifelike plastic-and-paint injuries began arriving at advanced aid stations and then were sent on to the emergency hospitals in West Columbia and Arcadia. There, teams of doctors, nurses, and allied personnel, with the help of Civil Defense communications operators, Boy Scouts, and other volunteers, took over the task of sorting, diagnosing, and treating the casualties. Senior medical students worked with the doctors, making the operation an educational effort as well as a trial of the hospital equipment and supplies. The activities continued until 6 a. m. Red Cross canteens in each hospital supplied food and drink throughout the procedure.

Baylor University College of Medicine and the University of Texas Medical Branch have leased one emergency hospital unit each. Prior to Operation Rebound, these units had been unpacked and repacked in functional form, each box or crate, for example, being painted on the corners with a distinctive color to indicate that its contents should go to triage, x-ray, laboratory, pharmacy, operating rooms, wards, supply, or utilities. Stored in huge vans, one of

This patient, like others evacuated from Houston, went through an advanced aid station. After preliminary treatment, he was brought to the hospital. Although Operation Rebound personnel recognized the seriousness of the trial, occasional gaiety relieved the long hours.

First stop at the hospital after admission was the triage station, where senior medical students under supervision of physicians examined the patient, noted the information on his tags, and ordered his next procedure. Caps of varied colors differentiated groups of participants.



Some patients, such as this one with severe facial lacerations, were examined by means of a portable x-ray unit. The unit used polaroid film which could be read two or three minutes after the picture was taken.

Rebound

which the Texas Medical Association has agreed to help finance, these hospital units will remain at Baylor and the Medical Branch but will be available for training purposes elsewhere in the state. Additional units are stockpiled at Camp Swift near Bastrop.

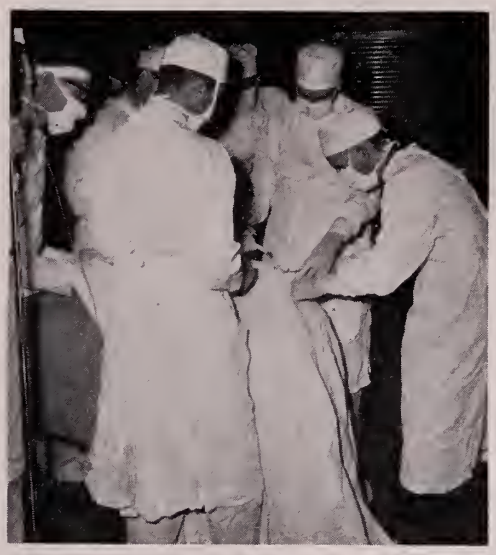
The hospital unit assigned to West Columbia was ready for patients 55 minutes after the van rolled to the door of the school building commandeered for the trial. This included a portable x-ray machine with polaroid film which gave finished prints two or three minutes after a patient was on the table. It also included an electric generator to furnish light for the hospital, sterilizers, sheets and blankets for the canvas cots, surgical masks and gowns, intravenous fluids, drugs, and a host of other equipment and supplies important to medical care in an acute emergency and for general care if necessary for a year or more.

In addition to the hospital units, aid stations, communications centers, and headquarters, a mobile blood bank was established in Alvin during the exercises, and a helicopter provided by the Army shuttled back and forth to carry supplies. Donors to the blood bank were the only visitors permitted to observe the trial other than official participants. Expendable supplies were conserved insofar as possible, only a minimum being actually used but others being brought into position and checked off so that an accurate determination might be made of what would have been used in circumstances other than imaginary.

A team of umpires from Brooke Army Medical Center, Fort Sam Houston, was on hand to analyze the effectiveness of Operation Rebound, and participants ranging from "patients" to physicians on the hospital staffs and official visitors were asked to fill out questionnaires on their roles and observations. The equipment, supplies, and care of patients will be evaluated and the data made generally available.

Major responsibility for staging Operation Rebound was assumed by Dr. Stanley W. Olson, dean, and Dr. J. R. Schofield, assistant dean of Baylor University College of Medicine, and Dr. Truman G. Blocker, Jr., professor of plastic and maxillofacial surgery at the University of Texas Medical Branch. Dr. Blocker served as commanding officer for the trial. Participating in the conference and acting as observers were about 50 members of Medical Education for National Defense, representing medical schools from throughout the United States; Dr. Schofield is national coordinator for this group.

Medical, surgical, and expectant wards were fully staffed with nurses to keep tab on the pulse and other symptoms important in continuing medical care. A laboratory and a pharmacy also were at hand.



In each of three operating units, patient, surgeon, and assistants carried out the motions of surgery.

Umpires from Brooke Army Medical Center and others evaluated each procedure to determine strong and weak spots in the hospital and its utilization. Here Col. George Prazak (standing left) confers with Dr. W. D. Nicholson, Freeport (white coveralls), who was chief of staff of the hospital unit at West Columbia; Dr. Ralph E. Gray, Lake Jackson (checked jacket); and other participants. Dr. C. F. Quinn, Texas City, was chief of the hospital at Arcadia.

Coordination of the entire operation was made possible by communications centers set up and manned by Civil Defense personnel.

Texas Medical Examiners Make Activities Report

Interstate licensure by reciprocity is now almost 100 per cent, a recent report of the Texas State Board of Medical Examiners indicates, with only Florida refusing to reciprocate with, or endorse, physicians from any of the other states. Texas reciprocates with, or endorses, all others and the District of Columbia.

Copies of a table showing the states and their reciprocal policies were recently sent by the Texas Board to the deans and the senior class presidents of the 85 medical schools in the United States. At the same time, photostatic copies of a front page *Houston Chronicle* editorial commending the Board for its holding of open meetings were sent to all the State Boards of Medical Examiners in the country.

The Department of Internal Revenue has rendered a decision making the Educational Council for Foreign Medical Graduates income tax free, the report also shows.

This council, composed of two representatives each from the American Medical Association, the American Hospital Association, the Association of American Medical Colleges, and the Federation of State Medical Boards of the United States, is set up to screen and examine foreign medical graduates from the 535 foreign medical schools, so that well-qualified foreign medical graduates may be licensed in this country.

Representative of the Federation of State Medical Boards on this council for the next four years is Dr. M. H. Crabb, Fort Worth, secretary of the Texas Board.

Burney Gives Tips to Lick Temporary Salk Shortage

In local areas where Salk vaccine shortages now exist due to the tremendous interest aroused by the recent doctors' campaign, three steps recommended by Surgeon General Leroy Burney of the Public Health Service may help make use of the existing supply most effective.

Preference should be given to those under 20 and to pregnant women. Secondly, local communities should begin their programs with first injections as supplies become available, without waiting to accumulate sufficient reserves to complete second and third injections. And, if planning groups would stagger dates of community vaccination drives, particularly in large cities, that also would help even out available supplies.

So far this year, more than 35,000,000 cc. have been used, compared with 77,000,000 in all 1956; production in January reached 11,000,000 cc., in February, 16,500,000, record highs. The surgeon general anticipated that the shortage would begin easing up by mid-April.

Governor Proclaims Special Observances

Future Nurse Day was proclaimed by Governor Price Daniel for March 30, the day on which the Future Nurses of Texas had their third annual meeting in San Antonio, and Health Education Week has been designated as April 28-May 4 by the Governor.

In calling attention to Future Nurse Day, the Governor said:

> Continued renewal and extension of the ranks of the nursing profession, through the attraction of young poeple into this vital work, is essential to the future health and welfare of the Nation.
>
> There are many problems facing the nursing profession which can be solved only through the aid of an informed and sympathetic public.
>
> . . . It is proper and fitting that on this day our attention and recognition should be focused on the great contributions, past and present, that the nursing profession has made to the national welfare and security.

Relating to Health Education Week, which overlaps the period of the Texas Medical Association annual session, the Governor's proclamation stated:

> The high standards of health and medical care enjoyed by the people of Texas have been achieved through the cooperation of the many branches of science, business, industry, education and all segments of society.
>
> The Health Fair, sponsored by the Woman's Auxiliary to the Texas Medical Association, April 28 through May 8 in Dallas, is a commendable effort to provide further health education for the people of Texas.
>
> Therefore, I, as Governor of Texas, do hereby designate the period of April 28-May 4, 1957, as Health Education Week in Texas, and urge all citizens to avail themselves of the knowledge offered by the Health Fair in Dallas.

Personals

Dr. Gilbert H. Fletcher, chief of the Department of Radiology, University of Texas, and director of radiation therapy, University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, discussed "The Role of Radiation Therapy" at the tenth annual Connecticut Cancer Conference for Physicians, held March 13 in Hartford.

Among guest speakers at the ninth annual Mid-West Cancer Conference, held March 7-8 in Wichita, Kan., was *Dr. Vincent P. Collins* of Houston.

Dr. Frederick C. Rehfeldt of Fort Worth became president of the Congress of Neurological Surgeons at its recent annual meeting.

Joe F. Lakey, director of the Bureau of Food and Drugs, State Health Department, in Austin, has been appointed to an advisory committee on food standards, Commissioner George P. Larrick has announced from Washington, D. C. It is a division of the Food and Drug Administration.

Dr. Andrew S. Tomb, Victoria, chairman of the American Academy of General Practice Liaison Committee with the American Psychiatric Association, will participate in an hour-long, five-state, closed-circuit television seminar on "The Physician and Emotional Disturbance" May 6. The "Videclinic" will be presented by the American Medical Association's Council on Mental Health and the medical societies in the five states receiving the program, in cooperation with Smith, Kline and French Laboratories, Philadelphia.

Dr. John B. Trunnell, Houston, spoke on "Trends in Cancer Research" when he appeared at the third annual Seminar in Cancer presented by the medical staff of the Huron Road Hospital, Cleveland, in February.

Dr. W. Compere Basom, El Paso, was elected a member of the Board of Governors to the American Fracture Association in Chicago recently.

Dr. George C. Morris, Jr., of the Baylor University College of Medicine, Houston, has been selected as one of 25 Scholars in Medical Science by the John and Mary R. Markle Foundation. The sum of $750,000 has been appropriated toward support of the scholars in the schools where they will teach and carry on research; for each scholar ap-

pointed, the fund is $30,000, granted at $6,000 annually for five years. Surgery is the field of Dr. Morris, who attended Duke University and received his medical degree from the University of Pennsylvania School of Medicine.

Dr. A. B. Pumphrey, Fort Worth, was given a certificate of merit recently for having attended the New Orleans Graduate Medical Assembly 10 times, a distinction few physicians have achieved.

Dr. Samuel A. Shelburne, Dallas; *Dr. Paul E. Teschan,* Fort Sam Houston, San Antonio; and *Dr. Bryan Williams,* Dallas, were among featured speakers at the thirty-eighth annual session of the American College of Physicians, held April 8-12 in Boston.

Dr. F. J. L. Blasingame, Wharton, trustee of the American Medical Association, has been appointed one of two AMA delegates to the Istanbul meeting of the World Medical Association.

A resolution honoring the late *Dr. Sam E. Thompson,* Kerrville, was passed by the Texas House of Representatives in Austin January 24. It was introduced by Representative Joe Burkett, Jr., and signed by Speaker Waggoner Carr.

Dr. Jorge L. Ceballos, assistant professor of radiology at the University of Texas Medical Branch, is resigning from that position as of May 1 to return to his native country, Mexico. He and Mrs. Ceballos have lived in the United States for six years.

Dr. and Mrs. Wilber Forrest Robertson of San Antonio have announced the engagement of their daughter, Sarah Joe, to Philip Duder LeMessurier of Bloomfield Hills, Mich. An early fall wedding is planned by the couple, who are both seniors at Denison University, Granville, Ohio.

Dr. and Mrs. James W. Finney, San Antonio, recently became the parents of a son.

Dr. and Mrs. J. H. Playfair are parents of a son, Thomas Mitchell, born January 31 at Luling.

Hazards in Metal Arc Welding

The newer welding technique known as inert-gas-shielded consumable-electrode arc welding was first introduced about six years ago and has been coming into more general use in the past year. This method uses a shield of argon gas around the arc. A higher electric current density is required and a consumable electrode. These two factors make ultraviolet radiation 5 to 30 times as great, thus increasing the dangers of exposure to the skin and eyes and the spatial range of such hazards.

Ozone is produced by the ultraviolet radiation from the oxygen in the room. Ozone causes irritation of the eyes, nose, and throat; headache and lethargy results and in more serious concentrations, pulmonary complications. The oxides of nitrogen produced from the nitrogen in the air are increased when the ultraviolet radiation is increased, but less so than ozone. Metal fumes from the material being welded and the compound used in the welding are hazards. Aluminum oxide, nickel carbonyl, and oxides of chromium, lead, and zinc may be produced, depending upon the metal.

It is anticipated that this technique will increase because inert gas shield of helium or argon around the heat source avoids contamination of the weld by oxidation and reduces discoloration, splatter, and pitting. Continuous feed aspect of this welding process is also advantageous as it further reduces pitting and splatter, produces a smoother weld faster, and allows a longer seam to be welded without interruption.

Following are 3 cases reported as a result of the increased ozone concentration.

1. A 51 year old man suddenly developed headaches, substernal oppression and dyspnea while at work. On admission to the hospital, one hour later, he had frank pulmonary edema but no other evidence of heart failure. The electrocardiograms were normal. Chest roentgenogram showed diffuse peribronchial infiltration with peribronchial and multilobular pneumonia. Two weeks were required for his recovery under symptomatic management.

2. A male worker, age 47 years, noted burning of his eyes and throat for three days and developed a cough and a sensation of choking and dyspnea. Examination revealed bronchial breathing and coarse rales over both lung fields. The patient was hospitalized and treated for bronchial pneumonia.

3. A 31 year old male welder, after leaving work, noticed an acid taste and a severe sudden anorexia. That evening he had a shaky chill and his temperature rose to 102 F. He developed substernal oppression and dyspnea. He was treated with penicillin at home, and after nine days he was well. The early chest roentgenogram showed mottled densities in both lung fields.

All three of these workers had recently changed from the conventional arc-welding technique to the consumable electrode arc-welding machine. Control of such conditions is largely through good engineering practices with adequate ventilation and exhaust hoods close to the site of the welding. An awareness of the meaning of these symptoms would help point out the difficulty more quickly than was the case in the report.—Kleinfeld, M.; Giel, C.; and Tabershaw, I. R.: A.M.A. Arch. Indust. Health, 15:27-31 (Jan.) 1957.

Fresh Viewpoint

A new way of looking at the proposed federal budget for fiscal 1957 was suggested by columnist John McCutcheon in the Chicago *Tribune.* He translated the breakdown of the budget into terms of a family with a $10,000 income as follows:

> It hires a policeman for $6,200, mainly to keep an eye on No. 2 big shot, an unpredictable character who lives across town. It pays $1,050 interest on money borrowed to hire the policeman. It pays $750 to a retired policeman, and it gives $300 to neighbors who, it hopes, won't object when the policeman steps on their lawns, and may even help him at his job. With these items out of the way, there is $1,700 left for the use of the family.
>
> However, there are a number of sons who have been pretty expensive recently. One has really had a tough time, what with illnesses, etc., and he gets $450 a year to keep him going. The others are in one trade or another, such as farming, labor, and mining. In recent years, because of jealousies, parental meddling, etc., relations have become strained with their parents and with one another. They now get about $950 a year just to keep the domestic peace.
>
> The mother keeps the home going on what is left: $300.

From US to Korea: $76,000 in Medical Books

The American-Korean Foundation and the United States Army Medical Service have announced discontinuation of their joint project of shipping medical books contributed by American individual physicians and medical groups to Korea. Response to the appeal was so generous, states Dr. Howard A. Rusk, foundation president, that more than 77 tons of medical texts, references, and periodicals, valued at $76,000, have been shipped to Korea from the United States.

MEMORIAL LIBRARY

Arthritis

Arthritis is perhaps the oldest disease of which we have definite proof. Examples have been collected from fossils dating back to remote antiquity. Yet authorities say it is one of the most neglected diseases.

Baillou, in 1570, was the first to use the term "rheumatism" as a name for acute arthritis. He was also the first to regard rheumatism as a clinical entity. From 1672 comes a description of an arthritic condition from Richard Wiseman, surgeon to King Charles II. This was a description of a "tumor albus," which is now recognized as tuberculosis of the joints.

Thomas Sydenham in 1683 published his "Tractatus de podagra et hydrope," in which he clearly differentiated gout from rheumatism. Sydenham also distinguished between acute and chronic forms of arthritis.

Heberden was the first to describe the arthritic nodes, which are now called by his name.

Therapy under Hippocrates' methods was conservative. He suggested diet, baths, warm climate, purging, and local applications. Celsus advised hot fomentations to the joints, hot plasters, and bloodletting; for pain he prescribed poppy heads boiled in oil and mixed with wax salve made of rose oil. In respect to treatment, Sydenham was ahead of other physicians, as he recommended, "Early to bed and early to rise, keep the mind easy, exercise regularly, and refuse wine."

The book "Arthritis and Common Sense," published in 1956, which for several weeks was a best seller, has been labeled by the Federal Trade Commission in a complaint against the author and publisher, as containing "false, misleading, and deceptive statements." A complete review of this book may be found in the *Bulletin of the Los Angeles Medical Association* for January 17, 1957.

Rheumatic diseases are a common cause of chronic illness in this country and rank second in causing temporary and permanent disability. It is estimated that 1 out of every 20 persons in the United States has some form of rheumatic disease. Rheumatism is more common than tuberculosis, diabetes, cancer, or heart disease. It cripples without killing, and keeps more people away from work than accidents. More than 50 per cent of the disabled from this disease are people under 45 years of age.

The rapid progress being made in the treatment of rheumatic diseases is reflected in the following list of references available in the Texas Medical Association Memorial Library.

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Gifts to the Library

Dr. Luise C. Brandenstein, Kerrville, 74 journals.

Dr. C. H. Brown, Jr., Stephenville, 148 journals.

Dr. Morris Davidson, Austin, 5 books, 2 journals, 21 reprints.

Dr. J. Edward Johnson, Austin, 4 journals, 2 reprints.

Dr. Edgar F. Jones, Jr., and Dr. Marcus L. Ross, Galveston, 17 tape recordings.

Mrs. H. S. Leon, Austin, 6 journals.
Dr. William F. McLean, Austin, 29 books.
Dr. B. E. Pickett, Sr., Carrizo Springs, 4 journals.
Dr. Morris Polsky, Austin, 31 journals.
Dr. Nelson L. Schiller, Austin, 37 journals.
Dr. B. O. White, Austin, 39 journals.
Dr. David R. Womack, Austin, 95 journals, reprints.

New Tape Recordings

The following tape recordings were presented to the Library by Drs. Marcus L. Ross and Edgar F. Jones, Jr., of Galveston:

"Vaginal vs. Abdominal Hysterectomy"—Dr. John C. McDermott, Los Angeles.

"Anemias of Pregnancy"—Dr. Roy Holly, Omaha.

"The Elective Induction of Labor"—Dr. Edward H. Bishop, Philadelphia.

"Treatment of Carcinoma of the Cervix"—Panel discussion.

"Toxemias of Pregnancy"—Panel discussion.

"Surgical Problems of Pregnancy"—Dr. Ralph A. Reis, Chicago.

"Obstetric Hemorrhage"—Panel discussion.

"Prevention and Management of Prematurity"—Symposium.

"Antimicrobial and Chemotherapeutic Agents in Obstetrics and Gynecology"—Formal papers.

"Gynecologic Complaints of Immature Females and Teen-Age Obstetrics"—Dr. Goodrich C. Schauffler, Portland, Ore.

"Legal Aspects of Obstetric Practice"—Dr. Louis J. Regan, Los Angeles.

"Indications for Hysterectomy"—Panel discussion.

"Medical Complications of Pregnancy"—Symposium.

"Factors Determining Type of Cesarean Section"—Panel discussion.

"Management of Prolonged Labor"—Panel discussion.

"Indication for Surgical Treatment of the Ovary"—Dr. Clyde L. Randall, Buffalo.

"Lesions to Be Considered in the Differential Diagnosis of Carcinoma of the Cervix"—Panel discussion.

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★ Books

Treatment of Migraine

JOHN R. GRAHAM, M.D., *Chief, Medical Service, Faulkner Hospital; Clinical Associate in Medicine, Massachusetts General Hospital; Instructor in Medicine, Harvard Medical School, Boston. 149 pages. $4. Boston, Little, Brown and Company.*

A Hindoo fable prefaces this monograph and thereby neatly pictures medical attitudes on migraine. At the same time it creates a mellow mood for the reading of the comprehensive treatise of migraine that follows. After lamenting the fact that we still do not know what triggers an attack of migraine, the author spends some time on definition. He differentiates between what he calls "classic migraine," the headache associated with neurologic aura, and the more

common "atypical migraine" or sick headache. At the same time he warns against migraine as a quick diagnosis of any severe headache and details those that may more probably stem from some organic lesion. Case histories clarify his differential points.

Secure in the diagnosis of migraine, the author proceeds to therapy. He leans heavily on ergot and its derivatives, both for diagnosis and treatment. He explains the mechanism whereby ergot achieves its effect, takes note of its possible toxic effects, specifically lists the contraindications to its use, and then offers many helpful suggestions in the management of patients who show unpleasant side reactions to ergot. Again the use of case histories points up individual difficulties. Therapy other than ergot is listed but without enthusiasm.

The chapter on prevention emphasizes general hygiene, both physical and emotional, along with a sympathetic attempt at modification of the migrainous personality. The importance of careful history and personal interest is stressed. Finally, notice is taken of the manifold treatments offered by the specialties, allergy, psychiatry, endocrinology, and even surgery.

This book is well worth reading. The style is good and the content is valuable.

—Caroline Crowell, M.D., Austin.

Complications of Regional Anesthesia; Etiology, Signs and Symptoms, Treatment

DANIEL C. MOORE, M.D., *Director, Department of Anesthesiology, Mason Clinic, Chief of Anesthesia, Virginia Mason Hospital, Seattle. 291 pages. $10.50. Springfield, Ill., Charles C Thomas.*

For the past several years the author has been a leader and a real enthusiast in the field of regional anesthesia among American anesthesiologists. He is, therefore, thoroughly qualified to write with authority regarding its complications. It is unfortunate that more enthusiasts have not reported adequately their untoward results.

The author has pointed out in his introduction that his complications of regional nerve blocks are due primarily either to "untoward results of the normal pharmacological actions of the blocking solutions used, or to trauma associated with the technique." Upon this basis he has discussed the etiology, signs and symptoms, and treatment of each separate complication.

The book is divided into three parts. Part 1 considers the complications which are seen following local infiltration and peripheral nerve block; part 2 discusses in detail the complications associated with spinal and epidural block; and part 3 describes incidental complications such as broken needles, unsatisfactory anesthesia, and certain postoperative complications which may occur with any anesthetic technique.

The text is well illustrated with photographs which properly emphasize the extreme end results of some preventable complications. Certain information is presented in table form for rapid comparison of data and clarity of organization.

There is probably no other single work available which has so completely considered the complications of regional anesthesia as reported in medical literature from all over the world, both historic and current. This review of the literature plus the author's own outstanding experience has not overemphasized the dangers involved in the use of these techniques, but has clarified the low incidence of serious complications when respect is shown for the pharmacological properties of all drugs used and the possible trauma of the techniques involved.

This book should be read by every medical and dental student to give them proper respect for the possible complications of techniques too frequently taught as having little or no danger. Every practicing physician and dentist should read it to learn again the causes, symptoms, and proper treatment of the complications they may experience in their offices this very day.

—Ivey E. Lamberth, M.D., Tyler.

Handbook of Physical Therapy

ROBERT SHESTACK, PH.G.R.P., P.T.R., *Technical Director, Department of Physical Therapy, Washington County Hospital, Hagerstown, Md.; Director, Department of Physical Therapy, and Consulting Physical Therapist, Kings Daughters Hospital, Martinsburg, W. Va. Foreword by I. William Nachlas, M.D. 212 pages. New York, Springer Publishing Company, Inc., 1956.*

This book, written by a physical therapist, is an attempt to make a very specialized field simple and easily understandable. Unfortunately, the author has tried to cover, in this small volume, almost the entire gamut of physical agents as applied to a vast range of diseases, from laryngitis to peripheral vascular disease.

The book is apparently based on the author's clinical impressions, and many of his recommendations conflict with techniques generally accepted in physical therapy. For example, he recommends covering the skin when bakers or infrared lamps are used; he considers diathermy absolutely contraindicated in the treatment of stiff joints; he uses two forms of heat in the treatment of bursitis and tenosynovitis, after previously stating that one should not order several types of modalities at one time where one modality will suffice.

There is a section on treatment with galvanic current for conditions without denervation, although this technique is now obsolete. In the massage chapter, there is a section dealing with percussion movements, which are, of course, rarely if ever used in therapeutic massage. A number of exercises for different areas and joints are described with no indication for their use.

Similarly, there are questionable statements in the clinical conditions discussed. An example is the use of galvanic stimulation in the flaccid paraplegic. Such treatment can have no possible value in a patient with part of the spinal cord completely destroyed.

Since the recommendations of the author are questionable in so many instances, the reviewer believes that this book should be recommended only for the physician or physical therapist who has had sufficient experience to be able to abstract the worth-while portions of the book.

—Edward M. Krusen, M.D., Dallas.

Health for the American People

A Symposium, Presented Monday, November 21, 1955, Massachusetts Memorial Hospitals Centennial Celebration. Published for Massachusetts Memorial Hospitals, Boston. 105 pages. $1. Boston, Little, Brown and Company, 1956.

The Support of Medical Research

A Symposium Organized by the Council for International Organizations of Medical Sciences. Established Under the Joint Auspices of UNESCO and WHO. Edited by SIR HAROLD HIMSWORTH, *Chairman of the Conference, and* J. F. DELAFRESNAYE, *C.I.O.M.S. 170 pages. Springfield, Ill., Charles C Thomas, 1956.*

A History of the Therapy of Tuberculosis And the Case of Frederic Chopin

ESMOND R. LONG, M.D., *Director of the Henry Phipps Institute, University of Pennsylvania, and Director of Medical Research, National Tuberculosis Association. 71 pages. $2. Lawrence, University of Kansas Press, 1956.*

To the Clendenning Lecture Foundation we are indebted for the inspiration that gave us this clever and interesting story of the therapy of tuberculosis.

Speaking from his background in training as a pathologist, his experience as an investigator, and his career as a director of medical research in tuberculosis, Dr. Long is eminently qualified to tell this story. The reader used to the stilted and restricted vocabulary of the average medical writer is surprised and pleased at the literary resourcefulness shown by this author in his choice of words and in the clearness of his descriptions.

He uses the "Illness and Medical Care of Frederic Chopin" as an example of the helplessness of other times as contrasted with present progress. It is a clever ruse and works well in holding the interest of the reader while the low state of medical science of the times is unfolded in the vivid imagery of the sick room of the famous composer.

"There are three powerful influences in Chopin's short life," he tells us, "his music, his loves, and his tuberculosis." All three are brought into focus in this dramatic story.

Following this biography, an outline of therapy from Hippocrates to modern times is given. This is brief but complete for the purposes and use of the average medical reader.

The chronological outline of stages of progress with dates, names of investigators and pioneers, and a brief statement of their chief contributions is closed with a long list of references for further reading and a comprehensive index. It is truly a classic in medical history.

—J. Edward Johnson, M.D., Austin.

New Bases of Electrocardiography

DEMETRIO SODI-PALLARES, M.D., *Chief of the Department of Electrocardiography at the National Institute of Cardiology of Mexico; Professor of Cardiovascular Clinics at the National University of Mexico, Mexico City, with the collaboration of* ROYALL M. CALDER, M.D., *Ed., English translation, Clinical Professor of Medicine, Graduate School, Baylor University; Physician and Cardiologist, San Antonio. 727 pages. $18.50. St. Louis, C. V. Mosby Company, 1956.*

This is a book packed with the best information regarding the why and wherefore of an electrocardiogram. In no volume has this reviewer seen the amount of informative material so well presented in so few pages.

This is not a book on clinical electrocardiography, but is a compenium of scientific information upon which we can call for the interpretation of a clinical electrocardiogram.

It is well written and illustrated. The subject matter is arranged in chapters developing each phase in chronological order, so that the physical laws governing the electrical phenomena that take place in the myocardium are more easily appreciated. The cardiologist can reason out the changes in the tracing, determine the mechanism involved, and untangle the complexities that may be presented.

Sodi-Pallares, in conjunction with his staff, has done extensive research on many problems, such as ventricular overloading, ventricular activation, and bundle branch block. He was the first to obtain a tracing from the interior of the ventricular cavities in studying the activation of the myocardium. He also studied septal activation by means of double simultaneous catheterization, this being the first studies in man.

This book presents to the clinician an appendix full of simplified mathematical formulas arranged in sequence so that a busy cardiologist can save time by referring to them.

—Ben H. Cooley, M.D., El Paso.

The Office Assistant; In Medical or Dental Practice

PORTIA M. FREDERICK, *Instructor, Medical Office Assisting, Long Beach City College, and* CAROL TOWNER, *Executive Assistant, Department of Public Relations, American Medical Association. 351 pages. $4.75. Philadelphia, W. B. Saunders Company, 1956.*

As an excellent beginning to their book, the authors outline possibilities for women in the medical field, giving the qualifications, job possibilities, and duties. They cite intelligence, dependability, and personality as top qualifications for the ideal assistant. One chapter outlines the medical code of ethics and medicolegal principles, impressing the fact that the welfare of the patient is all important and comes before all other interests.

The subject of keeping adequate files and records is well covered as is the collection of fees and establishment of fair fees. These are certainly second in the physician's or dentist's practice to the care and treatment of patients. By having good office practices and topnotch bookkeeping, the doctor will encourage confidence by his patients.

Routines for physical examinations and office assisting techniques are well outlined, and from the material, the reader would be able readily to develop techniques that would fit into any practice. Not to be overlooked is the good discussion of sterilization techniques, for the patient is often more concerned about the cleanliness of instruments, tables, and office than the office assistant realizes. A messy office does little for the already low morale of a sick patient.

Drug terminology and preparation and administration of medicines are essential to the office assistant if she is to understand and carry out the doctor's orders. Medical terminology is also a must in any practice.

The discussion on library duties is well done, but in the ordinary office such work is neither desired nor required to the extent described. Of course, it would be well for the assistant to have a passing understanding of library methods, as she may be required to do some research from time to time in the medical library.

Persons in any profession will agree that a smoothly run office is the key to satisfaction on the part of the customer or patient and the employer or physician. The authors have given many valuable pointers on this subject. Many small and seemingly insignificant duties which in reality should not be overlooked are discussed in detail. Duties to make the office more pleasant and a place of which to be proud are expressed in such a manner as to be the peak of the entire book, and they cannot be overemphasized.

—Mrs. Mildred Foxworth, Medical Assistant, Austin.

Christopher's Minor Surgery

ALTON OCHSNER, M. D., F.A.C.S., *William Henderson Professor of Surgery and Chairman of the Department of Surgery, Tulane University of Louisiana School of Medicine, and* MICHAEL E. DEBAKEY, M. D., F.A.C.S., *Professor of Surgery and Chairman of the Department of Surgery, Baylor University College of Medicine. ed. 7, 547 pages. $9. Philadelphia, W. B. Saunders Company, 1955.*

Electrodiagnosis and Electromyography

SIDNEY LICHT, M. D., *Honorary Member, British Association of Physical Medicine, Danish Society of Physical Medicine, and French National Society of Physical Medicine, Ed. 272 pages. $10. New Haven, Elizabeth Licht, Publisher, 1956.*

This book contains 12 chapters written by 11 authors on the use of electricity in diagnosis and treatment of neuromuscular disorders. It places special emphasis on the basic physiologic principles of such procedures for clinical application. The first chapter, by Licht, describes the history of use of electricity in medicine; this is followed by a chapter on the various apparatus used. The third chapter, by Ernest Fischer, on the physiology of skeletal muscle, is one of the best discussions on this subject ever written. It should be read by all physicians who are treating neuromuscular or neurologic disorders. Other chapters are on motor points, routine electrodiagnosis, chronaxy, strength-duration curves, progressive and alternating currents, electromyography, and electrical skin resistance. In general, this book provides a good up-to-date detailed reference on the subject.

—Odon F. von Werssowetz, M. D., F.A.C.P., Gonzales.

Textbook of Medicine

RUSSELL L. CECIL, M. D., Sc. D., *Professor of Clinical Medicine Emeritus, Cornell University, New York; and* ROBERT F. LOEB, M. D., Sc. D., *Hon. Causa, LL.D., Bard Professor of Medicine, Columbia University, New York, Eds.;* ALEXANDER B. GUTMAN, M. D., Ph. D., *Professor of Medicine, Columbia University, New York;* WALSH MCDERMOTT, M. D., *Livingston Farrand Professor of Public Health and Preventive Medicine, Cornell University, New York; and* HAROLD G. WOLFF, M. D., *Professor of Medicine (Neurology), Cornell University, New York; Associate Eds. ed. 9. 1786 pages. $15. Philadelphia, W. B. Saunders Company, 1955.*

This comprehensive volume embodies the more important and fundamental facts of previous volumes and at the same time has reflected the many strides which have taken place over the past several years. The passing of former contributors has made necessary the transposition of some material and has included preparation of 58 new treatises on subjects previously covered. It is noteworthy that some 40 odd new diseases or conditions have been covered which were not previously included. Examples of some of the new subjects covered are Colorado tick fever by Florio; coxsackie viral infections by Huebner; cat scratch disease by Daniels; the leptospiroses by Beeson; milk sickness and the painful shoulder by Cecil; burning feet syndrome, pyridoxine deficiency, vitamins and blood regeneration, and kwashiorkor by Spies; atherosclerosis and xanthomatosis by Barr, and many others. The magnitude of this book is realized by the fact that it has two editors, three associate editors, and more than 170 contributors. The number of contributing universities came close to 50, with the greatest number of contributors coming from Harvard, Columbia, and Cornell Universities and the federal services, which includes the National Institutes of Health. One cannot help feeling that a few more prominent contributions from other lands might enhance its value.

The book is printed on excellent paper and is edited in an easily readable style. The reviewer heartily recommends it as a handy reference book for any practicing physician's book shelf.

—Joe C. Rude, M. D., Austin.

ORGANIZATION SECTION

Texas Medical Association

Disability Insurance Plans Compared

A review of group disability insurance programs offered by 29 state medical societies, 5 large county societies, and the District of Columbia society has been completed by the Insurance Committee of the California Medical Association. Texas was one of the states.

The review showed that:

1. Maximum accidental death benefit offered in any contract is $5,000. The plan sponsored by the Texas Medical Association is one of 13 that offers $5,000.

2. The maximum age at which maximum benefits can be secured in any contract is 70 years. Texas has one of seven plans with a maximum enrollment age of 70.

3. The standard waiting period before disability benefits start is zero days for accidental disability and seven days for illness disability. Texas and California, which offer options from the first day to 180 days, have the widest range and the largest numbers of options.

4. Hospitalization insurance is offered in most of the contracts as an option at added cost. Texas has a maximum hospital benefit of 120 days, offered at added cost.

5. Texas is the lone state which offers benefits for illness up to 10 years and one of 12 which offers lifetime benefits for disability from accident.

6. Most contracts offer weekly benefits of $100. Texas provides the maximum of the 35 policies surveyed—$150 a week or $600 a month.

7. Texas and California offer the widest range of coverage. Texas offers a choice of three year or 10 year coverage with optional waiting periods ranging from first day to 180 day coverage.

8. Premiums vary considerably because of the variations in contract provisions. However, 22 plans provide for the same level premium payments by all members, whereas 13 programs have premiums based on age groups. Texas offers both level premium (10 year sickness policy) and step-rate premium (three year sickness policy).

Among the contracts reviewed, 13 underwriters were included. The Lumbermens Mutual Casualty Insurance Company, which underwrites the Texas Medical Association plan, underwrites three others out of the total of 35 contracts.

MEDICARE IN TEXAS

The House of Delegates of the Texas Medical Association will hear a progress report on the Medicare program in Texas at its meeting in Dallas during the annual session, April 27-May 1. Public Law 569 of the Eighty-Fourth Congress, which introduced the program, went into effect on December 7, 1956. All state medical societies are participating in Medicare, with two exceptions, Rhode Island, where the Army is paying doctors directly, and Ohio, where

the Army has contracted with an insurance company to handle the physicians' Medicare.

A report from Blue Shield, which was selected by the Association to serve as fiscal agent for the Medicare program, indicates that through March 28, Blue Shield had paid 3,756 claims for services rendered to beneficiaries of this program. As of this same date, $281,984.04 had been paid to Texas physicians by the fiscal agent. This is an average of $75.08 per case.

There has been a gradual increase in the number of claims received each week by Blue Shield and the percentage of Medicare cases handled in Texas is considerably more than all but one or two of the other states.

A progress report as of March 1 indicated that nationally Army dependents make up 25.5 per cent of the doctor claims, Navy 30.1 per cent, Air Force 41.7 per cent, and Public Health Service 2.7 per cent.

The Office of Dependent Medical Care is asking Texas, like other states participating in the act, to extend its contract from July 1, 1957, until it has been renegotiated next year. Texas negotiations are set for January.

★ County Societies

Liberty-Chambers—President, Dr. William L. Barnett, Cleveland; vice-president, Dr. Boyce E. Gibson, Hull; secretary-treasurer, Dr. Richard O. Clements, Liberty; delegate, Dr. A. R. Shearer, Mont Belvieu.

Lubbock-Crosby—President, Dr. Harold Warshaw; vice-president, Dr. Robert H. McCarty; secretary, Dr. A. W. Bronwell; treasurer, Dr. Clyde F. Elkins, Jr.; delegates, Dr. A. Lee Hewitt and Dr. Allen T. Stewart, Jr., all of Lubbock.

McLennan—President, Dr. Howard O. Dudgeon; vice-president, Dr. R. H. Baskin; secretary-treasurer, Dr. Milton Spark; delegate, Dr. T. M. Oliver, all of Waco.

Montgomery—President, Dr. E. E. Lenon; vice-president, Dr. Irving M. Watson, Jr.; secretary-treasurer, Dr. M. G. Hutchins; delegate, Dr. D. L. Sadler, all of Conroe.

Nacogdoches—President, Dr. Eugene S. Rogers; vice-president, Dr. James I. Allen; secretary-treasurer, Dr. Charles W. Coussons; delegate, Dr. Stephen B. Tucker, all of Nacogdoches.

Nueces—President, Dr. J. L. Barnard; vice-president, Dr. A. L. Lane; president-elect, Dr. H. E. Griffin; secretary, Dr. John Lingenfelder; treasurer, Dr. Haddon B. Woods, all of Corpus Christi.

Orange—President, Dr. Howard C. Williams; vice-president, Dr. Homer C. Stuntz; secretary-treasurer, Dr. D. H. Pollock; delegate, Dr. F. W. Wilson, all of Orange.

Panola—President, Dr. Fred T. Hargrove; vice-president, Dr. Glen R. Johnson; secretary-treasurer, Dr. K. C. Prince; delegate, Dr. W. C. Smith, all of Carthage.

Pecos-Jeff Davis-Presidio-Brewster—President, Dr. John W. Pate, Alpine; vice-president, Dr. William E. Lockhart, Jr., Alpine; secretary, Dr. John C. Hundley, Fort Stockton; treasurer, Dr. George A. Hoffman, Fort Stockton; delegate, Dr. D. J. Sibley, Jr., Fort Stockton.

Polk-San Jacinto—President, Dr. Joseph Dabney, Jr., Livingston; president-elect, Dr. P. C. A. Singleton, Corrigan; vice-president, Dr. Robert L. Kurth, Livingston; secretary-treasurer, Dr. T. L. Gardner, Livingston; delegate, Dr. J. H. Dameron, Livingston.

Randall-Deaf Smith-Parmer-Castro-Oldham-Swisher—President, Dr. L. B. Barnett, Hereford; vice-president, Dr. W. B. Childress, Tulia; secretary-treasurer, Dr. W. D. Lawrence, Hereford.

Red River—President, Dr. James L. Wright, Clarksville; vice-president, Dr. Melvin Mark, Jr., Clarksville; secretary and delegate, Dr. E. E. Brooks, Bogata.

Taylor-Jones—President, Dr. C. A. McFadden; vice-president, Dr. W. Hubert Seale; secretary-treasurer, Dr. Tom C. Burditt; delegate, Dr. R. W. Varner, all of Abilene.

Tom Green-Eight—President, Dr. Sam H. Gainer; president-elect, Dr. K. B. Round; vice-president, Dr. Lloyd R. Hershberger; secretary-treasurer, Dr. Francis M. Spencer; delegate, Dr. R. G. Boster, all of San Angelo.

Top-O-Texas—President, Dr. R. M. Brown, Pampa; president-elect, Dr. W. G. Stevens, Borger; secretary-treasurer, Dr. Joe F. Brothers, Borger; delegate, Dr. Joe R. Donaldson, Pampa.

Washington-Burleson—President, Dr. Robert A. Hasskarl, Brenham; vice-president, Dr. W. A. Knolle, Brenham; secretary-treasurer, Dr. C. E. Southern, Brenham; delegate, Dr. G. V. Pazdral, Somerville.

Webb-Zapata-Jim Hogg—President, Dr. J. S. Reitman; vice-president, Dr. William J. Emerson; secretary-treasurer, Dr. L. G. Cigarroa; delegate, Dr. J. G. Cigarroa, Jr., all of Laredo.

Wharton-Jackson-Matagorda-Fort Bend—President, Dr. Lorraine I. Stengl, El Campo; vice-president, Dr. Stanley E. Thompson, Richmond; secretary-treasurer, Dr. Joseph N. Bader, Edna; delegate, Dr. L. B. Johnson, El Campo.

Doctors and Lawyers Meet Jointly

Members of the bar were guests of Pecos-Jeff Davis-Presidio-Brewster Counties Medical Society at a dinner meeting March 5 in Fort Stockton. The program consisted of a talk by an attorney, W. O. Shaeffer of Odessa, on "The Medical Witness" followed by a motion picture on this same subject.

A joint committee of members from the Travis County Medical Society and the Travis County Bar Association presented a program on "Medical Testimony in Damage Suits" March 19 in Austin. Using as a model the American Medical Association's motion picture, "The Medical Witness," but modifying it to suit the locale, the attorneys and physicians constructed a hypothetical damage suit in which an orthopedist was cross-examined as an expert witness. The testimony was given twice, once with the physician making the most common errors occurring in such testimony and the second time with him following the procedures dictated by good medical and legal standards.

Tarrant Doctors Endorse Medical Examiner System

A resolution endorsing the medical examiner system as an improvement over the lay coroner system now functioning in Texas was adopted by the Tarrant County Medical Society recently. The resolution called attention to the fact that investigation of death without medical attendance is primarily a medical problem and that use of competent physician examiners elsewhere in the nation has brought a high quality of investigations. Support of certain medical groups currently seeking to supplant the coroner system by the medical examiner system was urged.

Bosque-Hamilton Counties Societies to Combine

The Bosque County Medical Society, meeting March 14 in Clifton, voted unanimously to accept the request of the two residual members of the former Hamilton County Medical Society to consolidate.

Cameron-Willacy Physicians Consider Medicare

Dr. Roy Lester, Dallas, medical director of Group Hospital Service, spoke on the "Practical Considerations of the Medicare Program of Importance to Practicing Physicians," and C. Lincoln Williston, Austin, executive secretary of the Texas Medical Asosciation, discussed the "Dependent Medicare Program and Its Long Range Implications," when the Cameron-Willacy Counties Medical Society met February 18 in Harlingen.

Harris County Doctors Sponsor Scouts

Seventeen Harris County physicians served as sponsors for Eagle Scouts who have indicated an intention of studying medicine at an Eagle Recognition Dinner held March 8 in Houston. In addition to the time and money already devoted to this cause by the doctors, they will continue to counsel the Scouts.

WOMAN'S AUXILIARY

TEXAS' FIRST HEALTH FAIR

Texas' first Health Fair will be held at the Dallas Health Museum on the State Fair grounds April 28-May 5 in conjunction with the Texas Medical Association meeting. Twenty-two special exhibits are being prepared on the most pertinent and timely problems in the various fields of medicine. The 40 permanent exhibits of the Health Museum also will be on display.

For those who have not visited the Dallas Health Museum, the third of its kind in the United States and containing one of the two transparent men in existence, the coming Health Fair will be doubly rewarding. It should be noted that Texas' first Health Fair is the second state health fair ever staged, and the first offered to the public without charge.

The Health Fair is to help the individual develop an increased awareness about his health, to help him develop a common-sense attitude toward the problems of ill health, and to encourage him to seek competent advice when needed.

Even though the fair is staged for the general public, it is designed as well to aid physicians and their wives in serving their own community. What is a better way to offer some sound health education fact than an exhibit at the local county fair?

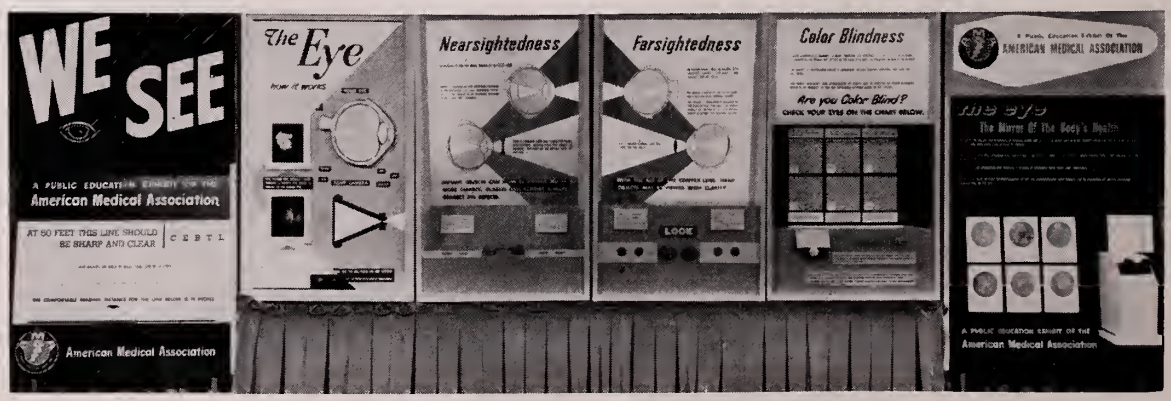
To avoid the stilted feeling often associated with scientific exhibits, the museum will be decorated in a fair motif. There will be free drinks and door prizes. The newest unit of the museum, the planetarium, will have special showings daily for the Health Fair visitors. There will be a special free show for the Woman's Auxiliary on Sunday, May 28.

Representatives of the Dallas County Medical Society have been consulted as to the choice and nature of the exhibits. Exhibits will be shown by the University of Texas medical schools in Galveston and Dallas, Baylor University College of Dentistry, American Medical Association, Dallas Veterinary Medical Association, Hensley Air Force Base, Texas State Department of Health, Dallas Health Department, Texas Division of the American Cancer Society, Dallas County Red Cross, Dallas Dietetic Association, Abbott Laboratories and the American Foundation for Allergic Diseases, Dallas Mental Health Society, Wadley Blood Center, Dallas Heart Association, Dallas Crippled Children Hospital, Children's Development Centers, Dallas Civil Defense, the Future Nurse Clubs of Dallas County, and winners of the District V Science Fair. On the patio will be the Dallas tuberculosis mobile truck and a civil defense disaster truck.

The Health Fair Committee, composed of Mrs. Jackson H. Speegle, chairman, Mrs. Albert H. Keene, Mrs. Thomas S. Barnes, and Mrs. Milford O. Rouse, all of Dallas, extends to all an invitation to "Come to the fair."

—Mrs. Jackson H. Speegle, Dallas.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1956-1957: President, Mrs. Richard C. Bellamy, Liberty; President-Elect, Mrs. H. S. Renshaw, Fort Worth; First Vice-President, Mrs. Harold Lindley, Pecos; Second Vice-President, Mrs. Ramsay H. Moore, Dallas; Third Vice-President, Mrs. William D. Nicholson, Freeport; Fourth Vice-President, Mrs. Lynn Hilbun, Henderson; Fifth Vice-President, Mrs. R. B. G. Cowper, Big Spring; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. J. L. Jinkins, Galveston; Corresponding Secretary, Mrs. E. R. Richter, Dayton; Publicity Secretary, Mrs. Joe Thorne Gilbert, Austin; Parliamentarian, Mrs. John C. Parsons, San Antonio; Executive Secretary, Miss Hazel Casler, Austin.



One of the exhibits—on the eye—to be displayed at the Health Fair.

Exhibit to Illustrate Projects

The Woman's Auxiliary to the Texas Medical Association, at the request of the Association's Committee on Public Relations, will have a display at the annual session in Dallas this month to dramatize the many worth-while projects conducted by Auxiliary members.

Designed and constructed by members of the Cameron-Willacy Auxiliary, wire figurines in proper attire will illustrate the work done in behalf of public relations, legislation, nurse recruitment, organization, *Today's Health,* philanthropic funds, science fairs, Library, and AMA hostess.

Located on the mezzanine of the Baker Hotel, the exhibit will be staffed with well-informed Auxiliary members who will greet visitors and answer inquiries.

An extra feature of the Auxiliary exhibit will be the specially designed Christmas card, to be sold to doctors and their families, to aid the American Medical Education Foundation.

This year's card will be shown for the first time, and orders for the cards will be placed in a model of a medical school. The lights in the school will go on each time an order is placed inside and it is the hope of the Woman's Auxiliary that a flow of orders will keep the lights forever burning in free medical schools in America.

County auxiliaries will receive credit toward the annual AMEF award for purchases made by their members. The cards will be available in packets of 25 for $2.50.

RECENT DEATHS

DR. ROLAND EDWARD BING, SR.

Dr. Roland Edward Bing, Sr., of Oakwood, Texas, died at his home on December 22, 1956, of a heart attack.

He was born on August 27, 1886, in Sealy, Texas, and was the son of the late Henry and Ione Milton (Sledge) Bing. Two years later, the family moved to Waller County, where he received his early education.

Dr. Bing obtained his medical degree from the University of Tennessee in Nashville in 1909 and did postgraduate work at Tulane University in New Orleans. He began his practice in Bastrop, Texas, but after a few months was petitioned to come back to Waller County, where he then practiced for 13 years. In 1922, he moved to Oakwood, where he practiced until his death.

Dr. Bing was a member of the Texas and American Medical Associations throughout his career through the Bastrop, Waller, and Anderson-Houston-Leon Counties Medical Societies. He was county health officer; local physician and surgeon for the Missouri Pacific Railway; an examining physician for Selective Service in World Wars I and II, for which he received certificates of appreciation from the late President Franklin D. Roosevelt; and a member of the Presbyterian Church.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

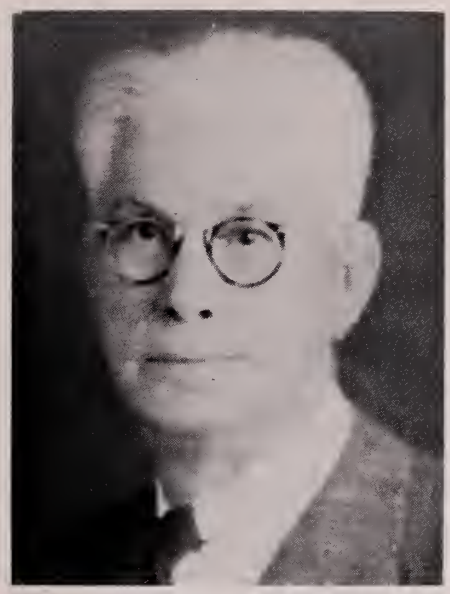
The physician and Miss Evalyn Winfree were married December 25, 1917.

Survivors are Mrs. Bing; one daughter, Mrs. Robert S. Allen of Wichita, Kan.; three sons, Dr. Roland E. Bing, Jr., of Victoria, Dr. Lyndon W. Bing of Katy, and Dr. Arlys W. Bing of Fairbanks; a brother, L. B. Bing of Pasadena; and four grandchildren.

DR. WILL P. ROGERS

Dr. William Peyton Rogers, El Paso, Texas, died January 20, 1957, in his home, of carcinoma of the right lung.

The son of Dr. H. E. and Sarah Emma Rogers, Dr. Rogers was born in 1875 in Lebanon, Tenn., and was graduated from Vanderbilt University School of Medicine, Nashville, in 1899. After beginning his medical practice in Milford, he moved in 1913 to El Paso, where he remained throughout his career. For a brief time, he was associated with the Mexican Northwestern Railroad and Affiliated Company Hospital in Madera, Chihuahua. He had been federal jail physician in El Paso continuously from 1916 until 1954. On his retirement from that position, he received high praise for his efficiency and consideration in caring for thousands of prisoners.



DR. WILL P. ROGERS

He had been a member of the Texas Medical Association since 1906 through the Ellis or El Paso Counties Medical Societies, and was elected to honorary membership in the state group in 1954. He was president of El Paso County Medical Society in 1937, and headed the professional division of the 1946 fund drive for the Hotel Dieu building project. He was on the staffs of Hotel Dieu, Providence, Old Masonic, and City-County Hospitals. A Scottish Rite Mason, he was presented a 50-year pin from the state Grand Lodge in 1956.

He was a captain in the Army Medical Corps during World War I, and served on the Procurement and Assignment Board for the Army and Navy during World War II.

Survivors include Mrs. Rogers, the former Miss Lula B. Adans, whom he married December 26, 1923, in El Paso; a son, William Hugh Rogers; a daughter, Mrs. Paul Harvey, Jr.; and three grandchildren, all of El Paso.

DR. AUSTIN OLIVER HULL

Dr. Austin Oliver Hull, who for 16 years was city bacteriologist of San Antonio, Texas, died of thrombosis in that city on January 28, 1957.

Dr. Hull was born on September 7, 1891, in Grand Cain, La. He was the son of John Colbert and Lillie Hull.

He attended Nacogdoches elementary schools, graduated from Nacogdoches High School, attended Tulane University in New Orleans, and received his medical degree from the University of Louisville in 1913.

Dr. Hull was a member of the Bexar County Medical Society, Texas Medical Association, and American Medical Association. He had practiced medicine in Three Rivers in 1914, and since that time in San Antonio, although he had been inactive the past few years.

He was married to Mrs. Esther Allsup Ralls in San Antonio in 1934.

Surviving Dr. Hull are his wife; one stepdaughter, Mrs. Floyd Price; a brother, Thomas P. Hull; and three grandsons, Jack Austin, Steven Craig, and Robert Bradley Price, all of San Antonio.

DR. J. H. HAMILTON

Dr. James Harvie Hamilton, Gatesville, Texas, died in McClosky Hospital December 5, 1956, of coronary thrombosis.

Son of James H. and Mary Elizabeth (McDill) Hamilton, he was born December 16, 1884, in Camargo, Tenn. He received his preliminary education in the public schools of Lincoln County, Tenn., and attended Morgan Prep School, Fayetteville, Tenn. He was a professional baseball pitcher for five years and school teacher for three years before turning to the field of medicine. He was graduated from Vanderbilt School of Medicine, Nashville, Tenn., in 1916. After serving two years as a first lieutenant in the Medical Corps Air Service, he did general practice in Jonesboro, Texas, from 1918 to 1926. In 1927 he moved to Gatesville, where he practiced until his retirement in 1952.

Dr. Hamilton had served several terms as president of the Coryell County Medical Society and was a member of the Texas Medical Association (honorary since 1953), American Medical Association, Masonic Lodge, and Odd Fellows Lodge. He was a school board member at Jonesboro. After moving to Gatesville he served six years on the city council, was on the board of the State Juvenile Training School for Boys, and was a trustee for Gatesville School District. He was also chief of staff at Coryell Memorial Hospital and a member of the board of stewards of the First Methodist Church.

DR. J. H. HAMILTON

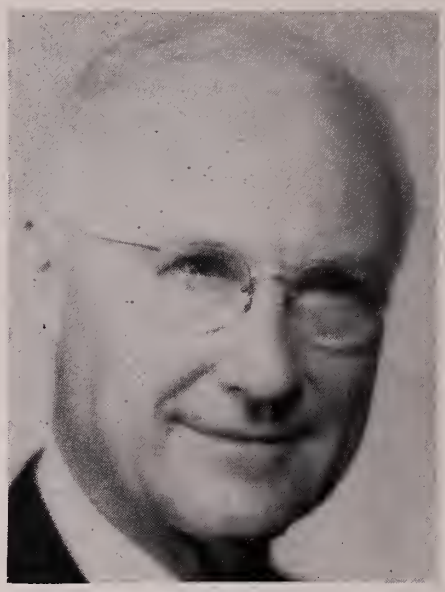
Dr. Hamilton's other activities included farming, hunting, fishing, and playing golf. He was an inveterate sports fan and loved football and baseball. His hobby was developing the farm land which he had acquired.

The former Miss Mary Lucile Woodard and Dr. Hamilton were married in Nashville, Tenn., on July 16, 1915. She survives, as do three daughters, Mrs. Floyd Zeigler of Gatesville, Mrs. Ruth Cummings of Dallas, and Mrs. Sam Franks of Fort Worth; one sister, Mrs. D. A. Esterquist of Denver; and seven grandchildren.

DR. HENRY R. MARESH

Dr. Henry Rudolph Maresh, Houston, Texas, died in a local hospital January 28, 1957, after an illness of three months.

Dr. Maresh, son of Frank and Mary (Jerabek) Maresh, was born October 9, 1890, in Caldwell, and attended public schools in Weatherford. He attended the University of Texas, Austin, and was graduated from the University of Texas Medical Branch, Galveston, in 1919. He interned at St. Mary's Hospital, Galveston, and was a resident in internal medicine at Christ Hospital, Jersey City, N. J., and St. Joseph's Hospital, Houston.



DR. HENRY R. MARESH

In 1921, he began medical practice in Houston with his brother, Dr. R. E. Maresh, and continued this association throughout his medical career. He was a member of the Texas and American Medical Associations through the Harris County Medical Society, and was a member of Alpha Omega Alpha honorary medical fraternity, Texas and Harris County Heart Associations, Texas and Harris County Historical Associations, Doctors Club, Houston Club, Pine Forest County Club, and Riverside Methodist Church, of which

he was past president of the board of stewards and past chairman of the board of education. He was a member of the staffs of St. Joseph's and Methodist Hospitals, and was on the visiting staff of Hermann Hospital. He was a consultant in internal medicine at Polly Ryan Memorial Hospital, Richmond, and was assistant professor of clinical medicine at Baylor University College of Medicine. Dr. Maresh was the founder of the Edna Gladney Foundation, a charitable institution, and was a leader in affairs of Czechs, having been president of the Czech Educational Foundation of Texas and the author of "The Czech Pioneers of the Southwest." He contributed to the "Houston Book" and the "Texas Handbook," and helped edit the "Encyclopedia Slavonica."

Dr. Maresh also was active in the business field; he was president of the Liberty Loan and Building Association and owned the Maresh Machine and Welding Company.

He served in the Army Medical Corps during World War I, and was a Selective Service examiner during World War II.

Miss Thelma Burnett and Dr. Maresh were married September 2, 1933, in Dallas. Mrs. Maresh, Houston, survives. Other survivors include four children, Karele Norean, Haden Rene, Harlan Renan, and Marsha Burnett, all of Houston; two brothers, Dr. R. E. Maresh, Houston, and Frank Maresh, Rosenberg; and a sister, Mrs. R. A. Newman, Fort Worth.

DR. B. F. STOUT

Dr. Beecher Franklin Stout, a pioneer pathologist of San Antonio, died January 24, 1957, of cardiovascular failure after a prolonged illness. Dr. Stout was born in Baldwin City, Kan., May 27, 1877, the son of the Rev. Andrew V. and Anne (Dean) Stout. He was reared in Olathe, Kan., and there received his preliminary education. After being graduated from the University of Kansas School of Medicine, Kansas City, in 1900, he served his internship at St. Margaret's Hospital, Kansas City, and returned to the university for postgraduate training in pathology.

In 1904, Dr. Stout came to San Antonio where he established the first private laboratory for clinical pathology in Texas. Shortly thereafter he was credited with the first laboratory diagnosis of hookworm infestation in Bexar County. In 1907 he was appointed city bacteriologist and in 1909 served a term as physician to the San Antonio Public Schools. He was for many years a member of the San Antonio Board of Health and a member of the board of directors of the Robert B. Green Memorial Hospital. In 1910, Dr. Stout took postgraduate work at the Charite Hospital, Berlin, Germany, where he learned the then new technique of the Wassermann complement fixation test for syphilis. Returning to San Antonio in 1911, he performed the first Wassermann test in Texas and administered the first dose of salvarsan. Later he took additional postgraduate training in pathology at Cornell University Medical College, New York.

DR. B. F. STOUT

During his 50 years of practice, he served as pathologist to the Robert B. Green Memorial Hospital, the Nix Memorial Hospital, and the Salvation Army Hospital and as consulting pathologist to the old Physicians and Surgeons Hospital and to other hospitals over Southwest Texas.

Dr. Stout had been a member of the Texas and American Medical Associations through Bexar County Medical Society since 1904. He served as secretary to his county society in 1904 and was elected honorary president in 1920. In 1933 and 1943 he served as chairman of the Section on Clinical Pathology of the Texas Medical Association. He was elected to honorary membership in the state Association in 1955. He was responsible for instituting the first tumor seminar in San Antonio in 1944. It was so successful that it was repeated annually and has evolved into one of the nation's outstanding tumor conferences, now sponsored by the San Antonio Society of Pathologists. Dr. Stout was a diplomate of the American Board of Pathology, a fellow of the American Society of Clinical Pathologists, and a founder and charter member of the Texas Society of Pathologists.

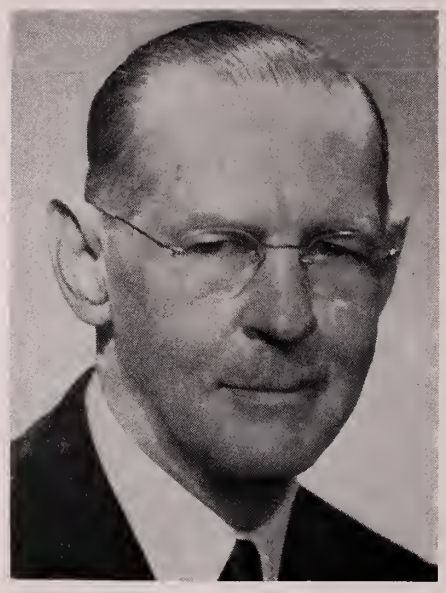
Unable to join the Army during World War I because of a serious hearing defect, Dr. Stout became contract clinical pathologist to the Medical Department of the United States Army, serving as chief of the Serologic Service at Station Hospital, Fort Sam Houston. Here his work was so outstanding that Dr. John A. Kolmer invited Dr. Stout to write the chapter on serodiagnosis of syphilis for his textbook of clinical pathology. In January, 1956, Dr. Stout was selected by the Texas Society of Pathologists to receive the George Caldwell Memorial Award for outstanding contribution to the advancement of medicine in Texas. Dr. Stout was the author of numerous scientific medical papers.

Dr. Stout was married to Miss Llora Beach of Kansas City in 1905. He is survived by his wife; one daughter, Mrs. Frank R. Newton, Jr.; two granddaughters, Anne and Cynthia Newton; and a niece, Mrs. Martin C. Giesecke, all of San Antonio.

DR. GUY F. WITT

Dr. Guy Ferguson Witt, Dallas, Texas, died February 14, 1957, in a local hospital.

He was born in Eddy, Texas, January 24, 1883, and was the son of Dr. J. M. and Mattie (Ferguson) Witt. His preliminary education was in public schools in Salado and Bartlett, and he also attended the University of Texas, Austin, from which he was graduated in 1904. He received his medical degree from the University of Texas Medical Branch, Galveston, in 1911, and interned at the John Sealy Hospital there. His four years of residency in neuropsychiatry were spent at the San Antonio State Hospital; he also took postgraduate work in neuropsychiatry at Harvard University Medical School, Boston, in 1936. Dr. Witt did general practice in Waco from 1912 until 1915, and in 1919 he began his practice of neuropsychiatry in Dallas, where he remained throughout the rest of his career. With



DR. GUY F. WITT

Dr. James J. Terrill, he founded the Timberlawn Sanitarium, and was its medical director until the time of his death. He had been head of the Department of Neurology and Psychiatry at Baylor University College of Medicine for 20 years when that school was in Dallas and was professor emeritus and former head of the Department of Neuropsychiatry at Southwestern Medical School, Dallas. He also was chief of psychiatric services for Parkland and Baylor Hospitals until about two years ago. He was a staff member of the Methodist Hospital, and held membership in the Texas Medical Association, Southern Medical Association, American Medical Association, American Psychiatric Association, and Central Psychiatric Association and the Presbyterian Church. He was a past president of the Dallas County Medical Society, and was a charter member and past president both of the Texas Neuropsychiatric Association and the Southern Psychiatric Association.

During World War I, he served with the United States Navy as a lieutenant and was in charge of the neuropsychiatric section of a naval base hospital in France.

The former Miss Stella E. Lacy and Dr. Witt were married in Waco June 24, 1915. Survivors include Mrs. Witt; a son, Guy F. Witt, Jr., Dallas; a daughter, Mrs. Richard A. Slack, St. Louis; three brothers, Edgar E. Witt, former lieutenant-governor of Texas and now of Washington, D. C.; J. Leslie Witt, Houston; and Bertrand D. Witt, Austin; and one sister, Mrs. Mabel Witt Mansfield, Austin.

DR. M. C. HAGLER

Dr. Menan C. Hagler, New Braunfels, Texas, died in a local hospital January 6, 1957, of coronary thrombosis after a prolonged illness. He had retired from active medical practice in 1952.

He was born January 7, 1876, in Purdy, Mo. His parents were John A. and Dolly (Fly) Hagler. After attending public schools, Dr. Hagler became a school teacher at the age of 16, then worked toward being a railroad engineer. Later, he decided to become a doctor, and was graduated from the Kentucky School of Medicine, Louisville, in 1905. He began his practice in Monett, Mo., but moved in 1913 to New Braunfels, where he remained in active practice until the time of his retirement.

Dr. Hagler was a member of the Comal County Medical Society, and had served as its president in 1931, 1940, and 1941. He was a member of the Texas Medical Association and American Medical Association, and had served as city and county health officer and as railroad physician for local lines. He was a past president of the New Braunfels Chamber of Commerce and Lions Club, and had been a member of the New Braunfels school board, American Legion, Woodmen of the World, Elks Club, Jesters, and First Methodist Church. He was a thirty-second degree Mason and a member of the Shrine and Eastern Star.

DR. M. C. HAGLER

During World War I, he served as a captain in the Army Medical Corps.

Miss Ella McGuffin and Dr. Hagler were married November 28, 1906, in Monett, and Mrs. Hagler died in March, 1942. Although they had no children of their own, Dr. and Mrs. Hagler took a niece and a nephew into their home at different times when the death of a parent had occurred.

Survivors include a brother, L. E. Hagler, Bourbon, Mo., and several nieces and nephews.

DR. F. E. McALISTER

Dr. Finis Ewing McAlister, who had practiced medicine in Houston, Texas, until very recently, died January 6, 1957, in Mobile, Ala.

Dr. McAlister was born in Woodville November 19, 1878, and was the son of Samuel and Sophronia (Young) McAlister. After attending preliminary schools, he entered the University of the South, Sewanee, Tenn., and was graduated in 1905. Four years later, he received his doctor of medicine degree from the University of Nashville, Tenn., and interned at Nashville General Hospital and at Tulane University Hospital, New Orleans. Later, he took postgraduate work at Tulane, Columbia University School of Medicine, New York, and Vanderbilt University School of Medicine, Nashville. Dr. McAlister practiced briefly in Victoria, Moscow, Bering, and Texla until 1917, when he

moved to Wiergate. He remained there until 1944, when he became associated with the Houston Clinic and continued to practice there until his recent illness. He had served as chief surgeon for the Gulf and Northern Railroad and for the Wier Long Leaf Lumber Company, Wiergate, for 25 years.

A member of the Texas and American Medical Associations through the Jefferson or Harris Counties Medical Societies since 1918, he also was a member of the Southern Medical Association.

Dr. McAlister was married to Miss Ida Elizabeth Slevin in Shreveport, April 10, 1908. She survives as do a son, Robert Ewing McAlister, Mobile, Ala.; two daughters, Mrs.

DR. F. E. McALISTER

Binford Sykes, Wilmette, Ill., and Mrs. Brack Hattler, Panama City, Panama; four brothers, Booth, John, and Samuel McAlister, Woodville; and Ralph McAlister, Nacogdoches; four sisters, Miss Altie McAlister, Woodville; Mrs. James O'Daniel and Mrs. Hugh Perry, Fort Worth; and Mrs. Floyd Smith, Austin; three grandsons, two of whom are preparing for medical careers; and four granddaughters.

DR. J. W. FOY

Dr. James Woodward Foy, Seymour, Texas, died January 10, 1957, in a local hospital after suffering a stroke some months before.

He was born July 12, 1901, in Anson; his parents were Alfred Lewis and Maggie (Easterling) Foy. After moving with his parents to Rotan when he was a small child, he attended public schools there. He also attended Tulane University, New Orleans, before entering Valparaiso University, Valparaiso, Ind. Dr. Foy was graduated from Baylor University College of Medicine, Dallas, in 1926; interned at Providence Hospital, Waco; and took his residency training at the Deaconess Hospital, Cincinnati. He practiced briefly in Quitaque and Rotan before moving in 1931 to Seymour, where he was in active practice until the time of his illness. He was largely responsible for the establishment of the Seymour Clinic and for an addition which was made to the Baylor County Hospital.

DR. J. W. FOY

Dr. Foy had been a member of the Texas Medical Association almost continuously since 1929 through the Baylor-Knox-Haskell Counties Medical Society, which he had served as secretary four years and president one year. He was a past president of the Thirteenth District Medical Society and the Seymour Chamber of Commerce, and was on the board of directors of the latter organization for several years. He also was a member of the American Medical Association, Chi Zeta Chi medical fraternity, and the Methodist Church.

Dr. Foy and Miss Lela Overstreet were married October 19, 1928, in Bowie. They had one son, James Woodward Foy, Jr., who is a premedical student at Texas Christian University, Fort Worth. Survivors other than his wife and son are his father, Alfred Lewis Foy, Rotan; a brother, Lewis H. Foy, Rotan; and three sisters, Mrs. Mary Grindstaff, Fort Worth, and Mrs. Edith Heron and Mrs. Ethel Williams, both of Lovington, N. Mex.

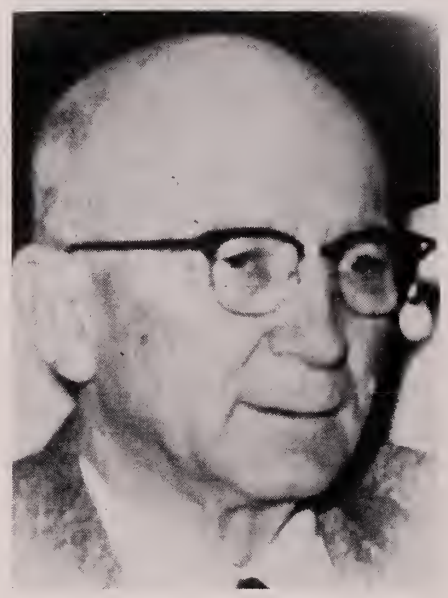
DR. DAN A. RUSSELL

Dr. Daniel Abell Russell, eye, ear, nose and throat specialist in San Antonio since 1922, died February 2, 1957, at a San Antonio hospital.

Dr. Russell was born October 22, 1895, in Bexar County, and his parents were Fred R. and Hulda (Benke) Russell. After attending public schools in San Antonio, he spent three years at the University of Texas. He then entered Tulane University School of Medicine, New Orleans, from which he was graduated in 1921. He was a member of the United States Naval Reserve Force, Hospital Apprentice, stationed in New Orleans while a medical student. After graduation he interned at Santa Rosa Hospital, San Antonio. Dr. Russell was associated with Dr. D. T. Atkinson, San Antonio, for 11 years, then set up his own private practice. Three years ago his son, Dr. Dan A. Russell, Jr., became associated with him. He took postgraduate study at the New York Polyclinic Medical School and Hospital; Washington University Medical School, St. Louis; and George Washington University School of Medicine, Washington, D. C.; and studied under Dr. Chevalier Jackson at Temple University, Philadelphia. He was a fellow of the American Academy of

Ophthalmology and Otolaryngology and a diplomate of the American Board of Otolaryngology.

Dr. Russell was a member of the Texas and American Medical Associations through the Bexar County Medical Society; past president of the San Antonio Ophthalmological and Otolaryngological Society; and past vice-president of the Texas Society of Ophthalmologists and Otolaryngologists. Also, Dr. Russell was associate professor of otolaryngology at the San Antonio branches of the University of Texas and Baylor University medical schools; a civilian consultant in ear, nose, and throat at Brooke Army Hospital; and consultant for Santa Rosa Hospital, San Antonio; Peterson Memorial Hospital, Kerrville; and the New Braunfels Hospital.



DR. DAN A. RUSSELL

Formerly he had served as chief of ear, nose, and throat services at Santa Rosa and Robert B. Green Hospitals for many years. He was vice-president of Phoenix Refining Company, San Antonio, and was a member of the San Antonio Country Club. Hunting, fishing, and poker were hobbies that Dr. Russell enjoyed.

He was married November 21, 1921, in San Antonio to Miss Naomi Gouger. She survives him, as do a son, Dr. Dan A. Russell, Jr., San Antonio; two daughters, Mrs. James D. Folbre, San Antonio, and Mrs. Michael Kangerga, Henderson; five grandsons and five granddaughters; and two brothers, Raymond R. Russell and Ralph W. Russell, both of San Antonio.

DR. JAMES H. PARK, JR.

Dr. James H. Park, Jr., died in a Houston, Texas, hospital February 6, 1957.

Dr. Park was born January 30, 1892, in Mexia; his parents were James Howard and Eva (Riggs) Park. He received a degree in pharmacy from Tulane University, New Orleans, and was graduated from Tulane University School of Medicine in 1916. After interning in Touro Infirmary, New Orleans, he spent a year in residency in Massachusetts General Hospital, Boston, where he specialized in pediatrics. He took postgraduate training at Rockefeller Institute Hospital, New York, in 1918, and began practicing his specialty

DR. JAMES H. PARK, JR.

in Houston the following year. When Baylor University College of Medicine was moved to Houston in 1943, Dr. Park was named professor of pediatrics and chairman of the department, which he organized. In 1947, he became clinical professor of pediatrics. In recognition of his fine work, the Pathology Conference Room at Baylor was furnished in Dr. Park's honor by his friends in 1950.

He was a member of the Texas and American Medical Associations through the Harris County Medical Society, and had served as chairman of the Section on Pediatrics in 1947. He was a fellow of the American College of Physicians and a diplomate of the American Board of Pediatrics, and held membership in the Association of American Physicians and Surgeons, American Academy of Pediatrics, Texas Pediatrics Society (of which he was a past president), Houston Pediatrics Society, Alpha Omega Alpha honorary medical fraternity, Methodist Church, Masonic Lodge, and Shrine. He was a former president of the Memorial Hospital staff in Houston, and enjoyed hunting, fishing, and golf as his hobbies.

During World War I, he held the rank of first lieutenant in the Army Medical Corps.

Miss Edith Brownell and Dr. Park were married in Columbia, S. C., on May 14, 1919. Mrs. Park survives as do two daughters, Mrs. W. M. Wheless, Jr., and Mrs. J. V. Neuhaus III; two sons, Dr. David R. Park and James H. Park III, and 11 grandchildren, all of Houston.

DR. WILLIAM R. JAMIESON

Dr. William Ross Jamieson, El Paso, Texas, died of arteriolar nephrosclerosis January 24, 1957, in a hospital in Fort Bayard, N. Mex.

Dr. Jamieson, son of William A. and Isabel (Ross) Jamieson, was born in Ottawa, Ontario, Canada, February 6, 1875. He attended schools in Ottawa, and was graduated from high school at the age of 14. Because of his youth, he was refused admission to McGill University Medical School, Montreal, so he worked four years in his father's drugstore. He then entered medical school, and was graduated in 1898. He set up his practice in Oklahoma, then

Indian Territory. In 1901, he moved to Torreon, Coahuila, Mexico, to practice 10 years before the outbreak of the Mexican Revolution. At that time, he moved to El Paso, where he practiced until the time of his death.

He had served as chief of staff of El Paso General Hospital, and was a member and past president of the El Paso County Medical Society, Reserve Officers Association, and Southwestern Medical Association. He was the only man who had twice been president of the latter group. He also was a member of the staff of Hotel Dieu, the American Urological Association, American Medical Association, and

DR. WILLIAM R. JAMIESON

Texas Medical Association, in which he held honorary membership. He was a member of the Masonic Lodge and Rotary International.

During World War I, Dr. Jamieson was a major in the Army Medical Corps and organized a field hospital unit. He was a retired colonel in the Army Medical Corps Reserve.

Miss Tulitas Wulff and Dr. Jamieson were married in San Antonio April 5, 1906. She survives, as do a sister, Mrs. Eva Gray, and two brothers, Leslie Jamieson and Jack Jamieson, all of Ottawa.

DR. HENRY PHILIPS

Dr. Henry Fuller Philips, Col., USA (Ret.), Dallas, Texas, died March 4, 1957, in the Veterans Administration Hospital at Lisbon.

Born near Nashville, Tenn., May 11, 1881, Dr. Philips attended the public schools in Tyler, Texas. He was graduated from the University of Texas School of Medicine in 1907 and served an internship at John Sealy Hospital, Galveston. After practicing briefly in Big Spring, then his home town, he joined the United States Army in 1908, being sent first to the Army Medical School in Washington, D. C. He then was at Fort Clark, Texas, for a short while before being transferred to the Philippine Islands for two years. After an interim period on the Texas-Mexican border with headquarters at El Paso, he returned to the Philippines for four years. In 1918 he was sent with the Army to Siberia for a year. Next he was stationed at Laredo, then at Fort Sam Houston, next at Fitzsimons Army Hospital, Denver, and then at Beaumont Army Hospital, El Paso. After five years as medical ROTC instructor at Baylor University College of Medicine, at that time in Dallas, Dr. Philips served at Edgewood Arsenal, Md., and Fort Ontario, N. Y. He then requested retirement because of length of service. The request was granted, but owing to upset world conditions then prevailing, Dr. Philips offered to continue on active duty and was sent again to Baylor with the ROTC. He suffered a heart attack in class in 1943, and after a period of hospitalization was retired for physical disability November 30, 1944.

After his retirement, Dr. Philips made his home in Dallas, where he was an active member of the board of deacons of Gaston Avenue Baptist Church and was a Mason. Dr. Philips was a service member of the American Medical Association.

Surviving Dr. Philips is his wife, the former Miss Lois Allen of Lampasas, whom he married September 23, 1908. Other survivors are two daughters, Mrs. A. E. C. Pope of Cedar Valley and Mrs. P. L. Barnes of Winston-Salem, N. C.; two brothers, Shine Philips of Big Spring and D. D. Philips, D.D.S., of Mount Pleasant, Tenn.; one sister, Mrs. B. D. Boswell of El Paso; five grandchildren; and two great grandchildren.

DR. STEVE F. TURNER

Dr. Steve Francis Turner died in his home in El Paso, Texas, on February 2, 1957.

He was born in Commerce, Texas, on December 3, 1911, the son of Tom L. and Lida Jack Turner. A graduate of Paris, Texas, High School, he was graduated from Paris Junior College in 1930, attended East Texas State Teachers College in Commerce, and Southern Methodist University in Dallas. He received his medical degree in 1935 from the University of Texas Medical Branch in Galveston.

Dr. Turner interned at St. Elizabeth's Hospital in Dayton, Ohio. He practiced briefly in Paris; with CCC camps in Dyess Colony, Oark and Russellville, Ark.; and in El Paso from 1941 to 1957. He was owner of the Turner Clinic in El Paso.

DR. STEVE F. TURNER

He was a member of Lamar and El Paso County Medical Societies, Texas Medical Association, and the American Medical Association. In addition, he was a judge and member of the American Kennel Club; member of the American Orchid Society, Knife and Fork Club, El Paso Junior Chamber of Commerce, and Montana Street Church of Christ. He was a philatelist and artist.

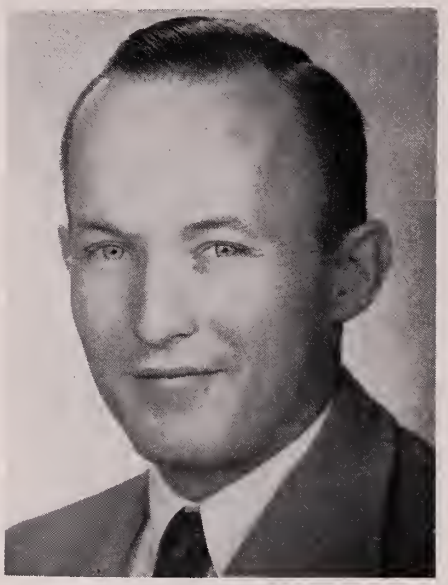
Dr. Turner is survived by his mother, Mrs. Tom Turner of Paris; a sister, Mrs. Lida Rolan Lewis of Odessa; and one nephew and two nieces who were his foster children, Tom Tandy Lewis, Madge Frances Lewis, and Millie Sue Lewis, all of Odessa.

DR. HUGH J. STENNIS

Dr. Hugh Joseph Stennis, Abilene, Texas, died January 16, 1957, of injuries received in an automobile accident north of Brownwood.

Dr. Stennis was born in Carlsbad, N. Mex., June 27, 1922; his parents were Samuel D. and Jeannie (McLees) Stennis. After completing his preliminary education at Pampa High School, Dr. Stennis attended the Schreiner Institute, Kerrville, and the University of Texas, Austin, for one year each, then interrupted his schooling to serve in the United States Navy during World War II. He was graduated in 1945 from Southern Methodist University, Dallas, and received his medical training at the University of Pennsylvania Medical School, Philadelphia. In 1949-1950, he interned at Hermann Hospital, then served two years as a captain in the Army Air Force Medical Corps and was stationed at Ellington Field, Houston. While in the service, he took postgraduate work in preventive medicine at Tulane University School of Medicine, New Orleans.

Dr. Stennis began his medical practice in Sweetwater in 1953, and was county health officer of Nolan and Scurry Counties for a year. He then moved to Abilene, where he



DR. HUGH J. STENNIS

was county health officer at the time of his death. In 1956, he earned his master of arts degree in public health from the Harvard Graduate School of Medicine, Boston.

Dr. Stennis had been a member of the Texas and American Medical Associations through the Taylor-Jones Counties Medical Society, and was vice-president of his local mental health society.

Miss Shirley Beatrice Berryman and Dr. Stennis were married March 10, 1950, in Houston. Survivors include Mrs. Stennis and two sons, Richard F., age 5, and Charles L., age 3, all of Houston; his mother, Mrs. S. D. Stennis, Pampa; two brothers, S. Y. Stennis, Amarillo, and H. J. Stennis, Dallas; and a sister, Mrs. H. E. Howard, Coleman.

DR. FRED M. HUGHES

Dr. Fred Morris Hughes, Houston, Texas, died of a heart attack January 28, 1957, just after completing a minor operation on one of his patients in a local hospital.

He was born February 26, 1898, in Ozark, Ala., and was the son of Elvin and Cora Hughes. After attending Texas Agricultural and Mechanical College, College Station, he was graduated from the University of Texas, Austin, in 1923, and received his doctor of medicine degree from the University of Texas Medical Branch, Galveston, in 1926. After interning in Hermann Hospital, Houston, he was a resident physician and surgeon there for two years. He began his private practice in Houston, and was active there at the time of his death. He formerly was on the surgical staff of Jefferson Davis Hospital for about 15 years.

DR. FRED M. HUGHES

He was a member of the Harris County Medical Society, Texas Medical Association, American Medical Association, Post Graduate Medical Assembly of South Texas, Theta Kappa Psi medical fraternity, West University Methodist Church of which he was a steward, Masonic Gray Lodge number 329 of which he was a past master, York Rite Masonic organizations, the Shrine, the Order of the Eastern Star, and American Legion for which he was medical officer.

He was in the United States Navy during World War I, and reentered the service in 1942. During World War II, he served at the Corpus Christi Naval Air Base and as a medical officer in the Southwest Pacific. He held the rank of commander when he received a terminal leave in 1945.

February 11, 1928, Dr. Hughes and Miss Ava Mae Bevil of Kountze were married in Houston. She survives, as does one brother, Charles L. Hughes, Houston.

DENTON KERR, M. D.
Ninety-Second President, Texas Medical Association
HOUSTON, TEXAS

TEXAS
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Dr. Denton Kerr

Ninety-second President of the Texas Medical Association is Dr. Charles Denton Kerr of Houston, who, on May 1, took over the office from Dr. Milford O. Rouse of Dallas during the ninetieth annual session in Dallas.

His is the success story of the small town farm boy whose ability and hard work have made him today a leader in his profession and in the civic life of the largest city in Texas.

Dr. Kerr was born on April 4, 1903, on a farm near Bronson, Texas, son of Stephen Austin Kerr and Florence E. (Page) Kerr. He had five brothers and four sisters, and times were hard in the years of his boyhood. The soil alone could not support the large family, so Stephen Kerr was often forced to work in nearby sawmills to pay back money he had borrowed to plant his crops in the spring. Young Denton was frequently his father's helper, both on the farm and in the mill, after school and in the summer months, and it was during these years that his father steadfastly encouraged him to get the education he himself had never had.

When Dr. Kerr was graduated from Rosevine High School in Sabine County at the age of 18, he became one of the teachers in a two-teacher school in Pinehill near his home town; three years later he became teacher and then principal at Rosevine. But—in the spring and summer months during those years, he took premedical courses at Stephen F. Austin College in Nacogdoches.

In 1923, he and the former Miss Edna A. Pointer of Bronson were married in that town.

By 1929, the future doctor was able to leave school teaching and study medicine at the University of Texas Medical Branch in Galveston. He received his degree in

May, 1933, after which he interned at Hermann Hospital in Houston and took his residency at various military hospitals and Duke Hospital, Durham, N. C.

Dr. Kerr's entire medical career has been spent in Houston, with the exception of some 40 months with the Army Air Corps as a major during World War II and a period in 1946 of postgraduate work at Duke Hospital.

He is a member of the Harris County Medical Society, the Texas Medical Association, and the American Medical Association. Evidence of his leadership abilities is apparent in the fact that he was secretary of his county society in 1947 and president in 1949 and that he has been chairman of the Section on Obstetrics and Gynecology of the Texas Medical Association and was a Trustee when named to the presidency-elect a year ago. In 1955-1956, he was second vice-president of the Southern Medical Association, and in 1951-1952, president of the Association of American Physicians and Surgeons.

In 1953, Dr. Kerr was appointed by the United States State Department to attend the Second All-Pakistan Medical Conference at King Edward Medical College in Lahore, Pakistan, as a representative of the American Medical Association. After the session, he toured the country as lecturer, consultant, and demonstrator of operative techniques. In 1951, he was appointed to an advisory committee to improve federal medical aid, an affiliate of the Citizens Committee for the Hoover Report.

Dr. Kerr is currently assistant professor of obstetrics and gynecology at Baylor University College of Medicine. He is a diplomate of the American Board of Obstetrics and Gynecology, a fellow of the American College of Surgeons and of the American College of Obstetrics and Gynecology, and a member of the Central Association of Obstetricians and Gynecologists.

Houston, too, has recognized him as a leader. He is chairman of the city health board; member of the board of directors, Sam Houston Area Council of Boy Scouts of America; executive committeeman and past co-chairman of the Houston United Fund drive; former vestryman and senior warden, Palmer Memorial Episcopal Church; former board member and an honorary life member of the Houston Chamber of Commerce; member of Rotary and the Masons. He is a former Democratic committeeman from Harris County.

"I am a great believer in education and hard work," he has been quoted as saying, "and these, together with a definite but flexible plan of life are an unbeatable combination for success." As is apparent from his own busy schedule, Dr. Kerr does not believe that "many men can achieve success or better their position by spending only 40 hours a week on a job." When he does take some time out occasionally, he is most likely to be found hunting, fishing, or on a golf course.

As might be expected of a self reliant man who has achieved success largely by his own labors, Dr. Kerr believes in individual effort and free enterprise. He has been in the forefront to recognize inroads into the free, private practice of medicine, to alert his fellow citizens to the dangers he sees, and to act on his convictions.

Dr. and Mrs. Kerr live at 1924 Braeswood Boulevard in Houston with their teenage son, Robert Denton. Another son, Dr. Rupert Kerr, is now practicing medicine with his father in Houston, following a stint in the United States Army and studies at Duke University.

Dr. Kerr's living brothers and sisters include Thurman Kerr of Mexia; E. E. Kerr of Beaumont; O. D. Kerr of Jasper; S. A. Kerr, Jr. of Huntsville; Mrs. Jewel Dranshorn of Bronson; Mrs. Lessie Birdwell of San Augustine; and Mrs. Lou T. Baldree of San Augustine.

This, then, is the newly-installed President of the Texas Medical Association: a hard worker, esteemed by his fellow physicians and civic associates, and with broad experience. Such qualities presage a noteworthy year under his leadership.

Good Session in Big D

The House of Delegates gave an ovation to Dr. May Owen of Fort Worth, retiring chairman of the Council on Scientific Work, during the recent annual session of the Texas Medical Association. This applause was recognition not only of the hard work which Dr. Owen has devoted to development of the annual meetings in recent years, but also of the excellent results which she and the many others who have responsibility for the sessions have achieved. The Dallas meeting set no records, but the general feeling seemed to be that it was a "good" meeting—worth while from the scientific standpoint, with some achievement in the business affairs of the organization, and full of the fellowship that makes a convention a pleasure.

A summary of the Dallas session appears in the organization section of this *Journal,* and full transactions will be published in June. Members are urged to check this information because a number of actions affecting all Texas physicians were taken by the House of Delegates.

Dallas doctors and their wives were gracious hosts, and the continuing rains that have broken the Texas drouth failed to discourage the 2,802 who registered for the session. Outgoing President Dr. Milford O. Rouse can be proud of the session put on in his home town. Now we can look forward to an equally fine session for 1958 in Houston, home town of his successor, Dr. Denton Kerr.

Dr. Pickett Retires

After 42 years as his county's delegate and ex officio in the House of Delegates of the Texas Medical Association, Dr. B. E. Pickett announced his voluntary retirement from this post at the concluding meeting of the House of Delegates at the session in Dallas earlier this month. Members of the House hearing his announcement stood and applauded in tribute to Dr. Pickett for his many contributions to the medical profession.

A self made man, Dr. Pickett was President of the Texas Medical Association in 1947-1948; a past president of the LaSalle-Frio-Dimmit Counties Medical Society, Southwest Texas District Medical Society, International Postgraduate Medical Assembly of Southwest Texas, and Texas Public Health Association; and a former member of the Texas State Board of Health. He was a delegate from the Texas Medical Association to the American Medical Association for 10 years—chairman of the delegation for most of that time—and continues to do an important job on the national level as chairman of the Council on Constitution and Bylaws.

It is such faithful, devoted service as Dr. Pickett's that gives a medical organization strength.

The House of Delegotes in session. Left: Vice-Speoker, Speaker, and chairmon of the Board of Trustees (left to right), with stoff ossistont ond officiol reporter. Right: County society ond ex officio delegotes.

Teammates

An artist without his paints and brush would be seriously handicapped. Just so would the physician be handicapped without the drugs, instruments, and other paraphernalia incident to modern medical care.

Not only does the physician need materials with which to work, he needs to know that they are dependable, that they reflect the best advances in research, and that they are accessible to him and his patients. He can learn about products that fulfill these criteria by reading the advertisements in the *Texas State Journal of Medicine* and examining the technical exhibits at the annual sessions of the Texas Medical Association. Screening of such advertisements and exhibits according to principles adopted for the protection of members of the Association and in accordance with good taste and practice is assurance that any product given publicity through these mediums may be used with confidence.

Aside from the information which the doctor obtains from the advertisements and the exhibits, the concerns which advertise and exhibit provide financial support which makes possible more and better editorial matter, a more comprehensive annual session with better speakers and facilities, than would be possible otherwise unless each doctor bore a heavier load of the expense. For example, advertisers in 1956 paid $70,907.98 out of the total expenditure of $81,257.10 for the *Journal.* Exhibitors at the annual session just concluded made available a net of about $12,000 for use in staging the annual session, which probably will cost, when all bills are in, at least as much as the $20,000 the 1956 session cost. It has been estimated, furthermore, that each exhibitor spends an average of $750 at a meeting such as the one in Dallas, making the total expense to the exhibitors at this year's meeting something like $75,000.

Pharmaceutical, instrument, publishing, and other industries which depend on the medical profession for their livelihood certainly reciprocate, sharing in the continuing education of physicians and offering them handy, effective tools of their trade so that their skill can be best applied.

The Real Thing

The people of Dallas can be thankful that physicians there were ready when disaster struck in the form of a tornado April 2. Pre-planning paid off in a smoothly operating, effective medical care effort—reported elsewhere in this issue—that might have been less than satisfactory had no preparation been made.

This "real life drama" brings forcibly to attention the value not only of the paper-charting and discussing and planning Dallas County Medical Society and other officials in Dallas had done, but also of the test and educational exercises such as Operation Rebound, held March 29 in southeast Texas and mentioned both in the April *Journal* and again in this issue's news section. The Galveston County doctors who took part in the Operation Rebound field trial remembered a real life occasion in which their skill and ingenuity was called into play: the Texas City disaster of April, 1947. And Waco and San Angelo physicians have not forgotten the services they were called on to perform following twin blows of a single tornado in May, 1953.

It has been said that insurance is being prepared for something you don't want to happen. Insurance against unnecessary human suffering, whether caused by enemy attack or natural calamity, is being provided by the doctors who serve on emergency medical service committees, sign up to fill their appropriate place on the emergency team, and cooperate in rehearsals.

Congratulations are due the Dallasites whose emergency plans were ready when they were needed. Congratulations are in order also for those throughout the state who are getting ready for disasters all of us hope will never come.

President's Page

A BETTER INFORMED MEMBERSHIP

If my administration is to have a theme, I should like for it to be "A Better Informed Membership." I earnestly urge the newer members of Texas Medical Association to strive daily to learn more and more about the art and science of modern medical practice. I urge the older members to do their best to assist their younger colleagues in their efforts to become better and more respected physicians. In no other way can we maintain the dignity and prestige that our predecessors have gained for us.

While planning the financial, professional, and spiritual future for yourself and your family be sure to include your political future. What will it profit you if you teach your children independence and thrift if a bureaucratic government takes his weekly earnings? What good will a retirement plan or an annuity do you if the dollar keeps shrinking in value? What good will it do for you to work night and day for a lifetime to build up an estate for your wife and children if it is to be confiscated by an inheritance tax? How can you urge your child to dedicate himself to a noble profession such as ours if a dictatorial bureaucracy is to insert itself between him and his patients and tell him how he is to practice medicine and what his income will be? Why should he enter any other profession or vocation if his chief competitor is to be an all powerful government?

Since the beginning of our republic, aliens and radicals have been trying to destroy it. At the same time pessimists have been saying that we were headed for destruction, while the more optimistic have said that our free enterprise system would live forever. On the next page you will find an outline for destruction of a capitalistic form of government. Opposite this outline you will find what Congress has done toward our ultimate destruction in the past 40 years. I wish you would study these carefully and predict the future of your children and grandchildren, unless more people become informed, concerned, alarmed, and active. Your Congressman can help change the situation for better or for worse. You can help change your Congressman by communicating with him frequently—or by remaining silent.

Denton Kerr

STEPS TOWARD DESTRUCTION OF CAPITALISM

From the Communist Manifesto—	*Changes Made By Our Congress And Our Bureaucrats*
1. Abolition of property in land and application of all rents of land to public purposes.	1. 40 per cent of all land is owned by the government.
2. A heavy progressive or graduated income tax.	2. Federal taxes can take up to 88 per cent of personal income. And at this time take 27 per cent of the average man's income.
3. Abolition of all right of inheritance.	3. Under the highest tax rate, the government can confiscate 77 per cent of the value of an estate.
4. Confiscation of the property of all emigrants and rebels.	4. To date, no seizure of this type has been attempted here.
5. Centralization of credit in the hands of the state, by means of a national bank with state capital and an exclusive monopoly.	5. The federal government is in banking and financing with the Reconstruction Finance Corporation, the federal land banks, the Federal Intermediate Credit Bank, and others.
6. Centralization of the means of communication and transport in the hands of the state.	6. Radio and television are tightly controlled by the government. So are the railroads, truck and air lines. Federal barge lines operate in competition with private carriers. Control of the press has been attempted recently.
7. Extension of factories and instruments of production owned by the state; the bringing into cultivation of waste lands, and the improvement of the soil generally in accordance with a common plan.	7. The government produces and sells electric power through the Tennessee Valley Authority and the Rural Electrification Administration. It also sponsors irrigation projects and rigid crop controls.
8. Equal liability of all to labor. Establishment of industrial armies, especially for agriculture.	8. Forced labor has been attempted but unsuccessfully.
9. Combination of agriculture with manufacturing industries; gradual abolishment of the distinction between town and country by a more equable distribution of the population over the country.	9. Under guise of the defense effort, the "planners" want industry "dispersed" to rural areas.
10. Free education for all children in public schools.	10. Public schools have traditionally been organized and financed by individual states and cities. However, the federal government is attempting to control all public schools by subsidizing them.

(Used by permission from a pamphlet prepared by the Constitution Party.)

ORIGINAL ARTICLES

Radiation and The Physician In the Atomic Age

MURRY D. SCHONFELD, M. D., and THEODORE BISLAND, M. D.

Dallas, Texas

WITH THE RECENT publications of the summary reports of the National Research Council of the National Academy of Sciences,[1, 2, 5] in respect to the biologic and pathologic effects of atomic radiation, together with the associated publications of the reports in the lay press and the current "scare campaign," it behooves the practicing physician to acquaint himself more closely with the current recommendations of the National Research Council.

RECOMMENDATIONS ON RADIATION EXPOSURE

The recommendations are as follows: (1) Records should be kept for every individual showing his total accumulated lifetime exposure to radiation. (2) The medical uses of roentgen ray should be reduced to as few as is consistent with medical necessity. (3) The average exposure of the populations' reproductive cells to radiation, above the natural background, should be limited to 10 r from conception to age 30. (4) The 10 r limit should be reconsidered periodically with a view to keeping the reproductive cell exposure at the lowest practical level. (5) The individual person should not receive a total accumulated dose to the reproductive cells of more than 50 r up to age 30 years and no more than 50 r additional up to age 40.

As well, it is important for persons directly concerned with the use of radioactive materials and radiation producing equipment, whether they be specialists or otherwise, to be acquainted with the regulations on radiation exposure recently adopted by the Texas State Board of Health.[6] These regulations, based on the prior recommendations, became effective and binding on September 1, 1956. Some important points deserve emphasis.

1. *Registration.*—Any person using or operating any radiation machine or storing, manufacturing, using, or handling any radioactive material shall notify the Texas State Board of Health of the fact in writing within 30 days following the commencement day thereof.

Dr. Murry D. Schanfeld, clinical assistant in radialagy at Southwestern Medical Schaal af the University af Texas, and his caauthar, clinical instructar in aphthalmalogy at Southwestern, presented this discussion at the Seminars in Radiology at Parkland Memorial Hospital, Dallas, January 22, 1957.

We are living in an Atomic Age, with the problems of radiation hazards increasing. The National Research Council has recommended the permissible dosage limits, and based on these recommendations the Texas State Board of Health has adopted regulations on radiation exposure. The implications of these recommendations are important, as are the fundamentals of radiation genetics. A plea is made for physicians to have at least a working knowledge of the facts involved.

2. *Responsibility.*—The responsibility, in respect to any installation where radiation may be present, is mainly that the person in charge of radiation safety shall determine the hazards resulting from the presence of radiation in the installation, and if necessary to this end, shall obtain the services of a qualified expert.

3. *Monitoring.*—Personnel monitoring shall be required for each individual for whom there is any reasonable possibility of receiving a weekly dose of all radiations exceeding one-quarter of the maximum permissible amounts, which are those recommended by the National Bureau of Standards.[8]

4. *Records.*—Records of all measurements required shall be kept available for inspection; and upon termination of employment of a person, the Texas State Board of Health, upon request, shall be supplied with a statement of that person's average radiation dose.

Needless to say, this regulation imposes certain duties on the physician who utilizes any type of radiation

producing equipment or substances in his office, with respect to his employees and patients. And, in view of the fact that radiation is no respecter of conventional barriers, it behooves the practitioner to exercise due care in the use of such substances and equipment and provide the requisite protection as stipulated by the National Bureau of Standards.[8] Ignorance of the law is no excuse, and failure to conform to the legal "due care" concept leaves the physician wide open for successful malpractice actions.

RADIATION GENETICS

Above and beyond the prior considerations, at a time such as this when the daily threat of atomic warfare and its implications exist, when we are currently engaged in the rapid development of atomic power in industry, and when we are devoting more and more of our effort to the therapeutic application of high energy irradiation, there is need to appreciate the fundamentals of radiation genetics, so that we may have at least a basic understanding of the underlying mechanisms of heredity.

Genes are the means by which inherited characteristics are transmitted. Their arrangement in a linear pattern makes up the visible chromosomal bodies, which are present in every cell of the human body. These chromosomes exist in pairs, human body cells containing 48 or one pair of 24 each. These cells are diploid whereas the germ cells are haploid, containing only half the number seen in body cells.[3]

The many thousands of genes which are present have the unusual capacity for self duplication during cell reproduction. It is these same genes which are present within the original sperm and ova that are repeatedly duplicated and elaborated in the development of the human organism. We know that these genes are extremely complicated molecular structures having at least nucleoprotein as a constituent. It is evident that genes are intimately associated with enzymatic reactions. They may represent the catalyst for the reaction. They may be changed by temperature, direct chemical reaction, and radiation. Changes in genic structure which are brought about by high energy radiation are our direct concern.

From a historical point of view, it is well to realize that the original discovery of the frequency with which genes undergo change or mutation was brought about with roentgen rays. The relationship between the amount of roentgen ray and the frequency of mutation is a linear one. That this is directly the case in humans has never actually been proved, but it exists for so many other species that the assumption is considered valid. Studies are going on at the present time which will validate this assumption or erase the question mark.[7]

High energy radiations produce their effect on the genetic material by ionization. The effect may be chemical alteration of genic structure secondary to this ionization. It may be related to the direct hit on a gene changing its molecular structure or may be related to actual chromosomal breakage. This latter fact was likewise demonstrated to be a direct effect of radiation upon the cell, although it is not considered of great practical significance.

We have mentioned previously that genes change and that these changes are spoken of as mutations. As far as is known, all genes are capable of mutation, and mutations occur spontaneously at a low rate. Most mutations produced have a harmful effect and most are recessive, which means that they only produce their effects when paired with a similar gene. This concept is the most fundamental in genetics. The gene which produces its effect with an unlike member of the pair is spoken of as dominant. It is important to understand that all genes are not equally sensitive to change.

IMPLICATIONS

The implications of the recommendations which have been adopted concerning radiation exposure are our present concern. They are considered in terms of the effect on the individual and secondly upon the population as a whole. The genetic effects of which we speak are concerned with the general population as a whole. It is evident that certain individuals may receive excessive amounts without influencing greatly the general pool of gene mutations.

It is this consideration of the effects on future generations that has caused the geneticist to conclude that any radiation is harmful. Since it is known, in animals at least, and probably so in humans, that exposure to ionizing radiation produces increase in numbers of mutations, in a linear fashion related to dose, and further that most mutations are harmful, the final conclusion is reached that any radiation is harmful. This is, in fact, true, but we are faced with the problem of arriving at a practical solution which will enable us to carry on our progress in this atomic age, to improve the quality of medical care through the diagnostic and therapeutic use of ionizing radiations, and to continue experimentation in the field of the atom. In adopting the recommendations, the Board of Health gave cognizance to these facts and allows persons associated with the direct application of ionizing radiation to be exposed to much larger dosages than recommended for the general population. As well, the medical use of roentgen rays has not been curtailed, nor do we think there is any desire actually to curtail necessary roentgen-ray examinations, but

rather the desire is for physicians to reconsider and avoid indiscriminate use.

However these points, taken out of context by the lay publications and radio, are causing concern among the population at large. Certainly the lay public and the lay information media are in no position to evaluate all the associated ifs, ands, and buts. The Medical Research Council of the British Isles[4] in 1956 went so far as to state that knowledge at present does not actually justify naming any specific figure as a limit for the dose of radiation which might be received by a population as a whole, and it is this point that should be emphasized rather than the fact that all radiation is harmful. If the British recommendations allow in the neighborhood of 50 r to the reproductive cells to the age of 30 years, by which age a parent will have had more than half his children, and not more than 50 r up to the age of 40 years, by which time about nine-tenths of children will have been born, it is not to say that these are established limits which will protect the population from genetic damage; these figures are based on what the geneticists speak of as the "doubling dose" concerning the rate of mutation. In order to understand this expression, one should consider the lowest dose of radiation which changes mutation in a way which is effectively equivalent to a doubling of the mutation rates of every gene. There are others who believe that during a lifetime a dose of as much as 200 r of whole-body radiation, in addition to background spread over many years, would be tolerable. The wide variation between these figures is clearly evidenced by the fact that on one hand, the concern is for the future populations, whereas on the other hand, the concern is for the individual, since it is assumed that this larger figure could be tolerated by an individual without development of complicating disease, such as leukemia.

The point that we would like to emphasize is not that there is no basis in fact for the recommendations of the geneticist, but rather that we should approach their recommendations with more understanding. Certainly we should understand the need for assuring that personnel and population are satisfactorily protected against ionizing radiations. The simple expedient of monitoring may bring to light the inherent hazards. The excellent record of the atomic energy project is evidence in itself that the hazards of working with ionizing radiation can be controlled adequately and both personnel and population protected. It is this necessity for high standards of protection that is the essential background of the recommendations, which, on the surface, would appear to limit the use of ionizing radiations. Actually, this is not the case.

There is no need for mass hysteria. Publicity pointing up the damaging effects of ionizing radiations, which have been well understood for years, is unnecessary. Rather, an intelligent approach, foreseeing the possible dangers both present and future, is needed. We should accept the recommendations for what they are, recognizing that many assumptions have been made which may or may not be valid. The fact remains that the general conclusions reached by the group of scientists working for this government were not very much different from the conclusions reached by the large group of British scientists, who certainly have more than adequate experience and background in the practical applications of ionizing radiations. The general unanimity of opinion among scientists should be looked upon with the same attitude that we would give to any data obtained under unbiased circumstances. Actually, what the scientists are calling for is a complete reevaluation of the uses of radiation, regardless of purpose.

There is no attempt to limit the medical profession any more than there is an attempt to limit the experimental and industrial applications of atomic energy. The fact remains that industry and government have been evaluating the hazards for years but have been taking the necessary steps to protect both the individual and the population. How well this job is being accomplished can be evident only by the short term follow-ups on the Manhattan project.

We have discussed the implications of the recommendations of the National Research Council briefly, in regard to general medical practice of diagnostic and therapeutic radiology. We have said nothing about the hazards of exposure to other radiation sources. It is interesting to note that the government has done an extremely satisfactory job in playing down the over-all radiation hazards associated with the long range atomic bomb testing program. The lay figure of the 30 year dose from weapons tested, if maintained at past level, which is estimated at less than .5 r, is undoubtedly grossly incorrect. The rate of fall-out is considered by some geneticists to be an extremely serious problem in that this is something that we are in no position to control, unless we can actually control, by world organization, the rate of weapons' testing.

In our own case, there was a tripling in the program between 1953 and 1955, and an additional doubling in the year from 1955 through 1956. If these factors were actually to continue, it would be evident that a continual doubling of this dose rate, small as it appears on the surface, could become a significant radiation hazard. It is interesting, therefore, to note that the medical profession is bearing the brunt of general public opinion in regard to radiation hazard, whereas the real problem is one which is given considerably less attention, because the figures were based on facts which are now definitely no longer true. We can control medical exposure, but what of the problems of contamination from waste

disposal, weapons' testing, and fall-out throughout the world?

In any event, if we are to live with what we have created, we must at least understand the problems inherent. Only by reevaluating the problem in the light of the present situation can we arrive at any intelligent program. It would appear that now is the time for us to do just this. The medical profession must be educated to a greater degree in respect to radiobiology and radiation genetics. We must justly rise above the individual; our civilization may be at stake!

SUMMARY

We are now in the Atomic Age. The problem of radiation hazards is a present and increasing one.

In the recommendations of the National Research Council, we should remember that two concepts are involved. As a result, two recommendations regarding permissible dosage are made involving the following:

1. The individual as a procreator of future generations. The very small recommended permissible dosage limits are applicable only to the actual radiation received by the individual reproductive cells of the gonads. These are theoretical limits, transferred from animal experiments, extrapolated, and then applied to humans.

2. The individual as a single and eventually terminable unit. The limits are many times that of concept 1 and refer to total body radiation. At present, these limits are approached only in persons dealing daily with radioactive substances, either in the medical field or in the weapons program. In the near future, it may be applicable to workers in the peacetime industrial power field. Should the contamination of the atmosphere by the weapons' testing programs of the world continue to multiply, these limits may be reached and even surpassed during our lifetime and therefore apply to every living soul, without exception.

Certainly, this factor alone—contamination of the upper atmosphere by substances which remain radioactive for many years—is of tremendous significance and one which should not be forgotten by lay public, doctors, military leaders, and politicians.

Some of the consternation caused by the lay press and radio has been due to applying the limits of concept 1 to the facts of 2.

The Texas statute relating to radiation-producing substances and/or machines is discussed. Compliance with statutory regulations is mandatory. Exercise of diligence in evaluating the risk, monitoring, and protecting colleagues, patients, and employees is necessary to conform to the "due care" standard of the legal yardstick—a prerequisite to preventing malpractice actions.

A brief review of the pertinent medical genetics is presented.

It is necessary that every practicing physician have at least a working knowledge of the facts presented, not only to evaluate his own situation and equipment but also to be able to combat intelligently the wave of doubts and questions that has arisen recently because of lay publicity.

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Questions of Medical Partnerships

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ASK ANY GROUP of individual practitioners if they are in favor of partnerships; the answer, of course, will be predominantly in the negative. In spite of this, the popularity of forming medical partnerships is on the increase.

Why do doctors form more partnerships when so few actually voice a preference for them?

Simply put, the reasons for forming partnerships are mainly medical and economic in scope, and personal preference has little bearing on the ultimate decision to form a partnership. Yet if you dig deep enough into established and successful partnerships, you will find that medical and economic factors become comparatively less important to continuance of

partnerships than personal preferences to continue. Maybe it is human nature to resist changes in personal habits; thus the partners in established practices stay together while still retaining nostalgic memories of the freedom to act on their own.

ADVANTAGES

The comparisons of the freedom to act are more theoretical than actual. In a good partnership practice there is freedom in (1) some afternoons, nights, and week ends off without worry about patients not being cared for or going to a competitor; (2) family vacations and professional meetings without much loss of income; and (3) little loss of income due to temporary disability.

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Although most physicians think they do not favor partnerships, such a practicing arrangement may have advantages for either the beginning doctor or his already established colleague. Problems that may prove costly and unpleasant often can be overcome by discussion, understanding, written agreements, periodic review, and counsel.

Also there is a better potential for retaining many important dollars in time of permanent disability, in event of death, and in planned retirement or decreased working hours. These factors are due the doctor and his family just as much as they are goals of labor and corporate organizations.

In addition, the medical aspect is important to most partners. They can have available medical referral and consultation without inconvenience to the patient and without disconcertion that the patient may not return for future care.

Not to be overlooked is the problem of fee splitting, which can be solved by partnerships in which billing is not separated, but income can be shared in various proportions.

Of course one may think partners can save money by grouping diagnostic services and secretarial work. This is true to some extent, but usually doctors and their accountants, who do not specialize in the medical field, estimate greater savings than those which result. More than likely, any savings are spent in better services and facilities.

TYPES

Let's look into what makes medical partnerships tick and succeed.

First, of course, there are various types.

Two young men may decide in internship or residency to face the world together having been working hand in hand; possibly their wives became good friends and drew the husbands together socially at first.

Then there is the established individual practitioner who needs a young doctor to help him for any of many reasons and who must offer him the incentive of possible partnership. If he picked the right young man—which, by the way, should be accomplished in a thorough manner (this costs time and money, but it is always worth eliminating the more expensive first guesses)—this young man will want the benefits of a partnership, and the two will become sound partners.

In addition, there are doctors who spend time in finding a location needing clinic coverage, get four specialists (internist, obstetrician, surgeon, and pediatrician) or two or more general practitioners, and start with the office and equipment needed for an established practice, "sweating it out" until they have a profitable patient load. These doctors can be financially successful much sooner in smaller cities or suburbs than individual general practitioners or specialists who set up small offices in larger cities and wait three to five years for well established incomes. The right town offers these wise partners a full practice within two years; sometimes it takes only a year!

Lastly, there are a few established doctors who join in partnerships for any one or more of the many benefits of partnerships. Some of these doctors end up taking in younger doctors to form a complete clinic operation.

PROBLEMS

Any of these types of partnerships are dependent for real success upon one rule: understanding and willingness to talk out problems however small. This is best accomplished by planning periodic meetings for reviewing the operation. Even greater success can be maintained by having a mediator to do two things: (1) to solidify open differences into common goals; (2) to alleviate potential points of friction existing but not observed by the doctors, possibly because of the lack of periodic information from qualified sources. The lack of qualified information can be a real detriment to a busy partnership because

partners then may get so set upon differences that none of them enjoys working together or they break completely.

Of course, a few doctors should not even consider partnerships—their personalities could not let them succeed if they wanted to! As personal reactions are based largely on one's background compared to the present situation, the need for thorough investigation prior to bringing a new acquaintance into a partnership is great. Obviously, two doctors relatively unknown to each other should have a trial period together. Even this working agreement for a trial period can be very expensive if the doctors later go their own ways. Consequently, the time and money involved in even one month of "joint" operation ($750 to $1,000 in salary plus discussion time) is best spent at first in thorough investigation of each doctor's background and philosophies plus the economic factors of the practice involved.

Let us see what can be other losses of a poor "first guess" with potential partners or partners finally going their separate ways.

The new doctor will have to move, probably out of town. Total expenses of an extra move could cost from $200 to $700 plus the time involved, and time is a doctor's second greatest asset (his first is his patient load).

Other tangibles, for example, printing costs, signs, even extra drug supplies and equipment, have to be borne by one or both doctors. This can be from $100 up to $1,000.

Esteem for all concerned is due for a drop in the eyes of patients, creditors, employees, and the hospital, too. Even the doctors' families can feel the results in their social life. This cost in dollars is unknown, but the cost can be high!

Also to be considered is the medical profession. "Floaters" can hurt the needed good public relations of the medical community.

Lastly, all concerned will be saying of partnerships, "I tried it, and I'm a lone wolf from here on." This could hamper doctors who can and should become partners or indirectly cause other partnerships to take a more dubious look at their operation and end up ready to break up.

ANSWERS

Partnerships in medical practices are even more similar to marriages than other business partnerships. Well counseled couples have more chance for happiness in marriage, and well counseled doctors stand greater gain in partnerships.

Who can counsel you? *Medical Economics* lists at least 26 firms in this field (two in Texas) and interested attorneys, accountants, bankers, or even clergymen can be of help to a great extent. If you can get other doctors in successful partnerships to take the time really to help you, you can gain much from them too, but any partnership should be designed finally upon the doctors and all the individual factors concerned.

Some of these factors are education and training, personality and social characteristics, medical philosophy, medical experience, economic experience, personal financial status, characteristics of family life, and goals and methods desired.

Written reviews of each discussion held for considering a partnership and also for its formation are excellent for reference to enable completion of the necessary written partnership agreements or temporary working agreements and intentions. Such written reviews and written agreements can eliminate misunderstanding, lack of accurate information, or lack of forethought to cover possible future contingencies that are factors hindering formation of successful partnerships.

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Abscesses And Sinuses In the Perianal Region

Differential Diagnosis And Treatment

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LESS than three years ago, a paper of mine was published under a title somewhat similar to the title of this paper. The fact that, in the previous paper, I professed some knowledge of the subject of it may be the reason why I have been invited to speak here. However, the difficulty arose, when I started preparation of this present paper, that I had said before, as well as I could, much of what I was scheduled to say to you. The two papers do not

cover exactly the same ground but, if anyone hears echoes in this one, they are here by permission and they can be traced to their source in my paper to which reference is given in the accompanying list of relevant articles.

When a patient with an abscess or a draining sinus in the perianal region complains of his difficulties, the physician has the duty of proving that a fistula is not forming or does not already exist. Nevertheless, if he is acquainted with other conditions which

Dr. John R. Hill, who is from the Section of Proctology, Moyo Clinic ond Moyo Foundotion, wos o guest speoker ot the 1957 onnuol session of the Texos Medicol Associotion in Dollos. This paper wos presented for the Section on Generol Proctice, April 30.

When the physician sees a patient who has an abscess or a draining sinus in the perianal region, the burden is on him to prove that a fistula is not forming or does not already exist. Comedo, sebaceous cyst, furuncle and furunculosis, hidradenitis suppurativa, pilonidal disease, and other nonfistulous conditions may be confused with abscesses and sinuses of fistulous origin. Treatment usually is surgical; the use of antibiotics is limited.

may produce such abscesses and sinuses, he may avoid futile effort to find a fistulous connection with the anus or rectum. If there is no fistula, but a perianal sinus exists, then another cause for the draining aperture should be sought.

Two concepts underlie what is said here; the structure called a "fistula" is presumed to connect with the anal or rectal lumen (or on rare occasions with a more orad portion of the bowel); what is here called a "sinus" may be the external end of a fistula or may be a tract that has no connection with the lumen of the anus, rectum, or any other portion of the intestine.

FISTULOUS CONDITIONS

Approximately 85 per cent of perianal sinuses operated on by members of the Section of Proctology at the Mayo Clinic are of fistulous origin—under the definitions given.

Abscesses that terminate in fistulas are most often results of infection beginning in anal crypts and, at least in some cases, probably are related to the presence of anal ducts that connect with the crypts. The next most frequent cause of a fistula is an abscess beginning in an anal fissure. Much less commonly, abscesses and fistulas in the anorectal region are secondary to inflammatory or malignant ulcers, to penetrating wounds, or to other types of trauma to the anus or rectum. Fistulas also may be associated with congenital anomalies which, of course, are rare. On infrequent occasions, furthermore, the source of a fistula which has its secondary opening in the perianal area may be disease which is located higher in the bowel. For instance, I have observed 2 patients with sigmoidoperianal fistulas that were secondary to perforation of diverticula of the sigmoid.

Occasionally an abscess in the perianal region may drain back through the opening into the lumen of the anus or rectum and then not proceed to formation of a fistula; in other words, an external opening does not form. In such an instance the abscess, unless treated, progresses to the chronic phase, and a so-called incomplete fistula results. Roughly speaking, any abscess that has not advanced to the point of spontaneous rupture, or to the point of having to be incised and drained, in four to five days should be suspected of draining back through its source. Proctologists have found, also, that the use of antibiotics may abort, but not cure, these infectious processes and that employment of these substances may cause confusion by altering the usual sequence of events. More will be said about this under the heading "treatment."

NONFISTULOUS CONDITIONS

The following conditions, which may cause perianal abscesses and sinuses, may be confused with abscesses and sinuses of fistulous origin.

Comedo.—In the skin about the anus comedones may become relatively large, may undergo inflammation, and may give rise to pustules. Occasionally a tiny, superficial sinus remains after this infection. The presence of other comedones usually makes the diagnosis obvious.

Sebaceous Cyst.—A sebaceous cyst may undergo inflammation and suppuration and may form a chronic, nonfistulous sinus which drains periodically. After a sinus has formed it may not be possible to identify the preceding condition as an infected sebaceous cyst. The history of a painless, subcutaneous mass having been present in the same location as the sinus, but prior to the onset of inflammation, is suggestive evidence.

Furuncle and Furunculosis.—An ordinary furuncle may occur in the perianal region and may simulate the stage of abscess of anal fistula. On rare occasions, also, a carbuncle may be seen in this area. A sinus rarely, if ever, follows either of these conditions.

The term "furunculosis" refers to the condition that accompanies a crop of boils, a disorder that may extend over weeks or months. When furuncles keep

recurring, the history is suggestive of fistula. Since furuncles, however, do not tend to recur in exactly the same area and do not leave sinuses, distinction between the two conditions usually is not difficult.

Hidradenitis Suppurativa.—In the perianal region, as well as in the axillary, mammary, inguinal, and genital regions, some of the sweat glands are larger and more deeply situated in the subcutaneous tissue than is usual and are called "apocrine" glands. The condition known as hidradenitis suppurativa apparently begins as the result of infection of these large glands. It is manifested in the early stages by one or more subcutaneous nodules, which grow to the size of a pea or larger and undergo softening and suppuration; subsequently, nonfistulous sinuses form. The process spreads through the subcutaneous tissue and, in the later stages, is associated with honeycombing of the skin and subcutaneous tissue by draining sinuses and abscess cavities. The disease may remain localized, but not uncommonly, in conjunction with the perianal involvement, there are lesions in the sacrococcygeal, gluteal, genital, or inguinal regions, and in advanced cases there may be mass involvement of all these tissues concomitantly.

In the early phases, hidradenitis suppurativa is not easily distinguished from other localized suppurative conditions. In the chronic stage, the disease, particularly if it is extensive, usually is not difficult to diagnose. It may be confused, however, with extensive pilonidal disease or anal fistula. Frequently the diagnosis of hidradenitis suppurativa will be aided by finding similar lesions in other regions where apocrine glands are located.

Pilonidal Disease.—An abscessed pilonidal cyst ordinarily points over the sacrococcygeal region. Occasionally, however, the infection burrows downward and points in the perianal region, usually posterior or lateral to the anus and on rare occasions anterior or anterolateral to it. Such an abscess may be hard to distinguish from one arising within the anus or rectum unless, when the abscess is opened, it is found to contain hair. On the other hand, after the abscess has been opened and sufficient time has elapsed, by palpation or probing, or both, a fibrous tract readily can be traced to a nonfistulous sinus in the midline in the sacrococcygeal area. This sinus often is tiny. Rarely, pilonidal disease and anal fistula may coexist.

Cysts Anterior to the Sacrum or Coccyx.—Dermoid cysts which are situated between the posterior wall of the rectum and the anterior surface of the sacrum frequently are accompanied by a congenital sinus (or dimple) just outside the external anal margin posteriorly, in the midline. Furthermore, since most dermoid cysts in this region have undergone infection by the time the patient seeks the surgeon, one or more secondary sinuses may have formed in the perianal region, usually posterior to the anus. When secondary sinuses do form, the condition readily may be confused with anal fistula. The true nature of the process may not be realized until surgical exploration. Frequently the situation will have been further confused by one or more previous operations for what was thought to be a fistula.

Another type of cyst occurs more frequently than does a dermoid. It is small, usually not more than 1.5 to 2 cm. in diameter; it may be multilocular; it has a thin wall which is lined with columnar or cuboidal epithelium; and it contains a clear, mucous material. This mucous cyst usually is found between the posterior wall of the rectum and the anterior surface of the coccyx. It also may be accompanied by a congenital nonfistulous sinus. In my experience, however, this type of cyst rarely becomes infected.

Trauma.—In several ways trauma may result in the formation, in the perianal region, of an abscess, a nonfistulous sinus, or both. For instance, patients with pruritus may start a furunculoid type of lesion by scratching. Occasionally traumatic fat necrosis also is seen and may be confused with an abscess. This is caused by an injury, such as a blow, to the perianal region; the fat cells of the subcutaneous tissue are traumatized, resulting in necrosis, inflammation and, finally, chronic induration. Such tissue may have to be excised, or at least unroofed before the process will subside.

Infection leading to formation of a chronic, draining, nonfistulous sinus may be caused, moreover, by some type of foreign body being introduced through the skin into the underlying tissues, particularly if the foreign body is not removed or is not absorbed. The foreign substance may be introduced accidentally, or it may be deposited by injection, for treatment of some condition such as anal pruritus, or to produce lasting analgesia after operation on the anus.

Osteomyelitis.—Infection arising in the bones of the pelvis may point in close proximity to the anus and result in a draining, nonfistulous sinus. Whenever a chronic perianal sinus is deep and the cause of it is not readily suggested, a roentgenogram of the pelvis should be made to rule out osteomyelitis.

ABSCESSES AND SINUSES PECULIAR TO THE PERINEAL REGION

In the female, abscesses and occasionally draining nonfistulous sinuses may result from infection of Bartholin's glands. Infection of these glands usually is readily recognized. However, anal fistulas may be found in these parts, and a diagnosis of Bartholin's abscess should not be made until the possibility of an anorectal connection has been eliminated by careful examination. Other causes of perineal nonfistulous

sinuses in the female are faulty healing of lacerations and of episiotomy wounds following childbirth.

In males, abscesses and sinuses rarely may result from periurethral infection and usually are associated with either a benign urethral stricture or a urethral malignant growth. Commonly, a history of urethral instrumentation can be obtained in such instances. After a sinus has formed, the diagnosis usually is simplified by drainage of urine through it.

CAUSES

The cause of most sinuses in the perianal region, both fistulous and nonfistulous, is evident in the history, physical examination, pathologic findings, or all three. Sometimes, however, the exact nature of the condition is not evident on microscopic examination because the infection has destroyed the tissues involved. The only possible microscopic diagnosis may be simply "inflammatory tissue." Bacteriologic studies usually are unnecessary, but they may be the only way to determine the cause of some conditions, such as tuberculosis, actinomycosis, and blastomycosis. On occasion, also, it may be necessary to call in the radiologist to study extensive sinuses after injection into them of radiopaque substances. The cause of some sinuses remains ultimately obscure.

TREATMENT

Detailed discussion of treatment is impossible here. In general, however, antibiotics are effective only in treatment of lesions of the furuncular type and for prevention of spread of certain other conditions. In my opinion, furthermore, use of antibiotics is contraindicated in the treatment of abscesses of fistulous origin, no matter in what stage of formation they may be; as I said earlier, they may alter the usual sequence of events and thus cause confusion when surgical treatment is attempted.

Once suppuration has occurred, more radical measures are required and they are likely to be curative even if the cause cannot be ascertained. Acute abscesses should be drained surgically, regardless of cause, but before this is done the patient should be told that further surgical work probably will be necessary. If abscesses are chronic, the source of the infection as well as the infected tissue must be eradicated.

Thorough eradication of fistulas of the anorectal region can be accomplished usually by either fistulotomy or fistulectomy. I usually choose fistulotomy, particularly if the fistulous process is deep or extensive, in order to conserve muscle and to prevent further separation of the ends of any muscle that has been severed. For fistulas of the rare sigmoidoperianal variety, which may follow perforation of a sigmoidal diverticulum, an abdominal surgical procedure directed at removal of the source of the infection is required.

If a chronic abscess or sinus is of nonfistulous origin, unroofing it may suffice. Excision of the entire process, however, increases the likelihood of cure. In cases of hidradenitis suppurativa, excision may result in an extensive denuded area which may require subsequent skin grafting. All patients with hidradenitis suppurativa should be told that the disease may extend and that the new lesions should be removed as they occur.

In spite of what has just been said in favor of surgical treatment, the exception must be kept in mind. Occasionally an extensive, nonfistulous sinus leads from the perianal region deep into the pelvis but causes very little disability. In such instances, considering the mutilating procedure which would be required to eradicate the sinus, it may be wise to forego surgical treatment and to continue observation.

SUMMARY

Perianal abscesses and sinuses may be either fistulous or nonfistulous in nature. As used here, the term "fistula" is applied only if a sinus tract connects with the lumen of the anus or rectum or with a more orad portion of the bowel. Under this definition, approximately 85 per cent of a series of perianal sinuses studied at the Mayo Clinic were of fistulous origin. Most fistulas begin as an infection in an anal crypt (or anal duct), but frequently they also may be secondary to infection beginning in an anal fissure. Less commonly fistulas may be secondary to, or accompaniments of, inflammatory and malignant ulcers, trauma, and congenital anomalies of the anorectal region; rarely, they result from disease higher in the bowel, such as a ruptured sigmoidal diverticulum. Nonfistulous sinuses generally arise subsequent to, or as accompaniments of, the following conditions: infections arising in sebaceous or sweat glands, pilonidal disease, cysts anterior to the sacrum or coccyx, trauma, osteomyelitis, and abscesses and sinuses peculiar to the perineal region. The use of antibiotics in treatment of these conditions is limited. Treatment usually is surgical.

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Shigellosis: Pediatric Aspects

With Special Reference To Central Nervous System Manifestations

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BACILLARY DYSENTERY (shigellosis) in epidemic form is seldom encountered in the United States except in boarding schools, mental institutions, and military installations. The incidence of the sporadic form of the disease, however, is sufficiently great to warrant the concern of the clinician and the public health services. Particularly is this true in Texas, which has the highest reported incidence in the United States. The national morbidity rate has stayed relatively constant at 20,000 to 30,000 reported cases annually since 1941, the first year in which shigellosis was reported as a separate disease in all 48 states.[13] The morbidity in Texas is listed as follows: in 1952—15,207 cases; in 1953—9,153; in 1954—7,212; and in 1955—7,309.[30] It is undoubtedly true that these figures include many cases not bacteriologically proved, but this factor is probably more than counterbalanced by the large number of unrecognized or unreported cases. The mortality rate of dysentery due to all causes, including shigellosis, has declined significantly and progressively since the turn of the century with the major portion of the change occurring before the antibiotic era.[32] It thus would appear that improved patient care and development of practical fluid therapy have been responsible for this fall in the death rate.

Dr. S. G. Thampson and his coauthar are from the Department of Pediatrics of the University of Texas Medical Branch and presented this paper for the Section on Pediatrics of the Texas Medical Associatian at the 1956 Annual Session in Galveston on April 24.

A study of 68 children with the sporadic form of shigellosis treated at John Sealy Hospital indicated that, although diarrhea is the most constant symptom, only half the patients have blood in their stools. Many patients show evidence of central nervous system involvement, frequently with pleocytosis of the cerebrospinal fluid. Fluid and electrolyte therapy are of paramount importance, and many cases respond well without addition of antibiotics.

Classical descriptions of the disease, derived from observations in adults, are not applicable to infants and children.[12, 15] The clinical picture is variable and often can be confused with other illnesses common to this age group. The purpose of this report is to review the symptoms, clinical findings, and laboratory characteristics of 68 bacteriologically proven cases of shigellosis studied at the University of Texas Medical Branch Hospitals. Particular attention will be directed to signs and symptoms suggestive of involvement of the central nervous system.

MATERIAL

All 68 patients in this series resided in the immediate vicinity of Galveston, and most of them came from areas of poor sanitation and crowded living quarters. The age distribution was equally divided between infants, toddlers, and preschool groups with only 4 cases occurring in children more than 7 years of age (table 1). No deaths resulted in the group of patients. Duration of hospitalization ranged from 5 to 10 days with an average of seven days.

CLINICAL PICTURE

Diarrhea was noted by the mother to be the initial manifestation of illness in 34 (50 per cent) of the cases (table 1). This was usually explosive in nature and often not accompanied with any other sign of illness. Loose stools usually persisted for two to three days before the child was brought to the hospital, and by the time of admission, diarrhea was present as the chief complaint in the majority of the patients. Only 2 of the children had no history of diarrhea during their period of observation. One was admitted because of severe anemia resulting from rectal bleeding, and the other was admitted for observation following the emergency room death of a sibling who had severe diarrhea and dehydration. Half of the patients experienced bloody diarrhea sometime during the course of their illness; otherwise, the stools were usually greenish or yellow in color. Tenesmus was identified in only 11 of the patients. Fever was noted at the onset of the disease in 20 patients. This was usually followed shortly by diarrhea. Only 2 patients were admitted because of temperature elevations of obscure nature. In 11 instances there was a definite history of diarrhea in siblings.

The most striking findings were those referable to the central nervous system (table 1). Seven patients were admitted primarily because of convulsions, whereas a total of 15 experienced convulsions

TABLE 1.—*Summary of Findings in a Series of 68 Patients with Shigellosis.*

Age Distribution		Admitting Temperature	
Under 1 year	20	Under 100 F.	14
1-2 years	23	100-104 F.	40
3-6 years	21	Over 104 F.	14
7-15 years	4		
Initial Symptom		**Admitting Symptom**	
Diarrhea	34	Diarrhea	52
Fever	20	Convulsions	7
Abdominal cramps	6	Abdominal pain	3
Vomiting	3	Fever	2
Rectal bleeding	1	Anemia	1
Other	4	Other	3
Character of Stool		**Bacteriology**	
Bloody diarrhea	33	S. Flexner	49
Nonbloody	33	S. sonnei	15
No diarrhea	2	S. type undetermined	4
Central Nervous System			
Convulsions	15		
Mental confusion	7		
Nuchal rigidity	5		
Severe headache	4		
Lumbar punctures	25		

sometime during their illness. This incidence of convulsive seizures would seem much higher than that expected from simple "febrile convulsions." Lethargy was frequently noted and usually pronounced. Physical findings consisted primarily of fever, dehydration, and lethargy. Several (14 patients) were in a state of shock when first seen. Conspicuously absent was evidence of other common causes of fever in children, such as otitis media, pharyngitis, tonsillitis, and pneumonia. Only 4 of the 68 patients had such an associated infection. The admitting temperature was between 100 F. and 104 F. rectally in most patients. Five children had nuchal rigidity, whereas 7 showed definite signs of mental confusion.

LABORATORY DATA

All patients received the usual complete blood count, urinalysis, rectal culture, and chest roentgenogram. The film of the chest was normal in all cases. Anemia was a common finding and was severe enough to require blood transfusion in 14 patients. Leukocytosis was not striking. No positive blood culture was obtained. Rectal cultures yielded Shigella in all cases. Four of the cultures did not agglutinate either the sonnei or Flexner antiserums but did have all the cultural characteristics of Shigella (other serums were not available earlier in this series).

Twenty-five patients had sufficient historical and/or physical findings to warrant one or more lumbar punctures. Table 2 gives the results of the initial procedures. By using the rather conservative criterion of requiring more than 10 cells in the spinal fluid in order to establish the condition of pleocytosis, there

TABLE 2.—*Analysis of Initial Lumbar Punctures on 25 Patients with Shigellosis.**

Cell count	0 – 10	11 – 20	Over 20	Max.
	17	4	4	410
Protein	Under 20	20 – 40	Over 40	Max.
	13	9	3	72
Sugar	Under 40	40 – 80	Over 80	Max.
	0	10	11	350

*No correlation between cell count, protein, or sugar.

was a total of 8 elevated cell counts. An additional 5 spinal fluids contained between 5 and 10 cells per cubic millimeter. The protein level was elevated in 3 cases, and the spinal fluid glucose was found to be above normal in 11 cases. No decreased sugar determinations were recorded. The chloride value was abnormally low in 2 instances. A total of 23 spinal fluids had some abnormality. There was no correlation between pleocytosis and increased protein.

DISCUSSION

Epidemiology.—The sporadic incidence which characterizes the series of cases herein described challenges epidemiologic analysis in the absence of extensive public health survey facilities. The classical "4 F's" of spread of enteric disease (flies, fingers, feces, and food), of course, are implicated alone or in combination. It has been noted that the majority of patients in this group originated from an environment of poor sanitation facilities and practices and of crowded living quarters. Eleven of the patients cited had a definite history of exposure to other members of the family with concurrent diarrhea. The role of asymptomatic carriers is difficult to assess, although it is undoubtedly an important one, both in endemic and epidemic diarrhea.[8] The importance of control of flies as a preventive measure has been demonstrated recently in field studies conducted in Georgia and Texas.[21] It is interesting to note that a case of shigellosis has been reported in a newborn infant, presumably through direct contact with contaminated feces from the mother at the time of delivery.[22]

The infrequency of the epidemic form of shigellosis has been mentioned. During 1954, there were only 19 epidemics reported in the United States.[7] Food handlers in restaurants and cafeterias, infected milk, and sewage-contaminated water are mentioned as etiologic circumstances.[4, 7, 12]

Clinical Features.—The symptomatology of shigellosis in infants and children is variable. Fever occurred in the vast majority of the patients described but was not proportional to the severity of illness. It was the initial finding in only 20 of the 68 patients. It should be noted that fever is much more common in shigellosis of children than of adults.[12, 18] Vomiting was the first indication of illness in 3 patients in this series and was not otherwise conspicuous, although others have described frequent vomiting, especially among infants.[12] The present report includes only 11 instances of colic, but this symptom is usually identified in approximately half of the patients in the pediatric age group; in general, its frequency increases with increasing age.[12] Tenesmus is also more characteristic of patients in older age groups. Headache is seldom of importance in children, although often described in adults.

Although all but 2 patients had diarrhea sometime during the course of their illness, only 34 patients experienced diarrhea as the initial indication of illness. The frequency and character of the stools varied markedly. As was noted, blood was found in the stools in only 34 (50 per cent) of the patients and in small amounts for a brief period of time. This is in marked contrast to the consistent (90 per cent) striking bloody diarrhea found in adults.[17]

Extreme lethargy, irritability, stupor, convulsions, and signs of meningeal irritation have been commonly observed in shigellosis. Findings referable to the central nervous system were conspicuous in the cases previously presented. Such signs as nuchal rigidity, tripod sign, and tightness of hamstring muscles necessitate differential diagnosis from poliomyelitis and meningitis. Analysis of cerebrospinal fluid in patients with shigellosis has been of particular interest and importance.[6, 9, 27] There can be no doubt that alterations in the spinal fluid occur in this disease. This was first emphasized by Simon,[27] who reported a child with shigellosis and spinal fluid pleocytosis. Hellman and Tahaka[19] described pleocytosis of the cerebrospinal fluid greater than 10 leukocytes per cubic millimeter in 81 of 211 infants with acute gastroenteritis; Shigella was recovered from 35 patients. Their studies revealed some correlation between severity of diarrhea and pleocytosis of the spinal fluid but no correlation between pleocytosis and clinical signs of meningeal irritation except in those with shigellosis. The central nervous system manifestations of the "hypernatremic syndrome" recently described in infantile diarrhea were not accompanied by cerebrospinal fluid findings other than increased protein.[16] Choremis[6] has reported changes in the electrolytes, sugar, and protein which are directly related to the severity of the biochemical changes in the blood and to the dehydration resulting from the diarrhea; pleocytosis was not described.

It appears that whereas pleocytosis of the cerebrospinal fluid has been reported in other forms of diarrhea, it is much more frequently and dramatically observed in shigellosis. It is not correlated with severity of diarrhea or dehydration. Neither is it due to bacterial invasion of the central nervous system since the organism cannot be recovered from this system of the body. The presence of a "toxin" has not been demonstrated to occur in any of the Shigella group except the Shiga bacillus.[11] The mechanism by which pleocytosis occurs is obscure, but, as table 2 clearly points out, it is present in a surprisingly high percentage of cases.

Diagnostic Features.—Clinical suspicion, of course, is the key to the early diagnosis of shigellosis, and the awareness of the variability of the clinical picture is of particular importance in this regard. It already has been emphasized that whereas diarrhea is present in nearly all patients at some time during their illness, it is initially present in only 50 per cent of cases. Likewise, bloody diarrhea is an unusual early finding and occurs in no more than one-half of patients at any time. Particular note also should be made of the fact that concurrent infections of other types are rare in shigellosis. Other circumstances which should arouse suspicion of the disease are (1) toxicity out of proportion to the severity of diarrhea or fever; (2) sudden sharp elevation of temperature in a well child followed by several loose bowel movements, bloody or not; (3) central nervous system signs and symptoms in a febrile child with or without diarrhea; and (4) persistent mild diarrhea in any infant in an area where shigellosis is prevalent or in households where siblings have similar symptoms.

Isolation of the Shigella organisms provides the only conclusive confirmation of the disease. Other diagnostic techniques such as skin testing with Shigella antigen, bacteriophage determination, and serologic agglutination tests are not reliable or practical.[23, 24] Some emphasis should be placed on the bacteriologic techniques involved since the percentage of positive cultures is dependent entirely on types and number of media used. Edwards[10] and others have emphasized the importance of using a battery of plates. The following combination of standard culture media has been found to yield positive cultures in more than 95 per cent of cases: 1 EMB agar, 1 SS agar, and 1 restreaked SS plate from a culture in Selenite F fluid. The Pediatric Bacteriology Department at the University of Texas Medical Branch uses a slightly dif-

ferent battery consisting of 1 MacConkey agar, 1 SS, and 1 restreaked SS plate from tetrathionate broth. The best and most practical method of obtaining a stool specimen is by the use of the rectal swab.

Other body fluids have been cultured but are seldom productive. Urine occasionally will yield Shigella, especially Shigella alkalescens. Blood cultures rarely will grow out the organism.[28, 29] No report of isolation of Shigella from the cerebrospinal fluid could be found in the literature.

The Flexner and the sonnei organisms are the only ones of major importance in the United States. Fortunately, the dread Shiga bacillus is rarely seen in this country. There are scattered reports in the literature of other types of Shigella which have been encountered on this continent.[28]

TREATMENT

There can be no doubt about the order of therapeutic measures in the moderate and severe cases of shigellosis. Replacement of the fluid and electrolyte deficit should begin at the earliest possible time according to the usual principles governing the management of diarrhea. The administration of intravenous fluids is recommended when clinical dehydration is apparent. Whole blood may be indicated during this stage of therapy to counteract shock and to correct severe anemias if these conditions are present. It has been shown conclusively that many cases of shigellosis respond clinically and bacteriologically to this regimen alone.[17, 18]

The use of antimicrobial agents (sulfonamides, streptomycin, and broad spectrum antibiotics) has become established in the management of this disease. Sulfonamides have long been considered the drug of choice.[17, 20] There is mounting evidence that sulfa-resistant strains of Shigella are becoming more prevalent, especially in the Far East where these drugs have been used extensively.[17] This problem is of little consequence in the United States at the present time. It is reassuring to know that several of the broad spectrum antibiotics are equal, and probably superior, to sulfonamides in effectiveness. Oxytetracycline, chlortetracycline, tetracycline, and chloramphenicol are considered to be equally effective in their ability to eradicate the Shigella organism from the human gastrointestinal tract.[1, 17, 20, 26] The routine use of chloramphenicol is not indicated when so many other drugs serve the same purpose so well. Intramuscular streptomycin is highly effective against Shigella also, but the potential toxicity and the method of administration make it undesirable as a routine treatment in the pediatric age group.[5, 20, 31] The effectiveness of insoluble sulfonamide preparations, neomycin, and oral streptomycin is controversial. Aerosporin (polymyxin B) while moderately effective, initiates such toxic symptoms that the use of the drug should be avoided completely, both orally and parenterally.[25] Attempt at prevention with the use of vaccines has not yielded encouraging results.[2, 3, 23]

CONCLUSIONS

Although the epidemic form of shigellosis is seldom seen in the United States, the disease appears in sporadic form with sufficient frequency to warrant the continued concern of the practitioner. This is especially true in Texas where shigellosis constitutes an important public health problem.

The symptomatology of shigellosis in children is variable and differs from that seen in adults. Fever, dehydration, and shock are more common whereas bloody diarrhea, tenesmus, and colic are less frequently noted.

Findings referable to the central nervous system were conspicuous. Convulsions were present in 15 of 68 patients described. Signs of meningeal irritation were often seen. Examination of the cerebrospinal fluid revealed pleocytosis in 8 patients and increased protein in 3 additional patients. Such findings necessitate the inclusion of shigellosis in the differential diagnosis of poliomyelitis and meningitis.

Aside from demonstration of the Shigella organism in rectal cultures, laboratory data in this disease do not aid in the diagnosis. The use of a battery of media and special bacteriologic techniques should be adhered to.

A significant number of cases respond satisfactorily to the usual symptomatic measures. The broad spectrum antibiotics are at least as effective as sulfadiazine. Combination drug therapy is recommended in chronic or resistant cases.

SUMMARY

The vital statistics, symptomatology, and clinical and laboratory findings in 68 bacteriologically proven cases of shigellosis studied at the University of Texas Medical Branch have been summarized. A review of the literature has been made which emphasizes and further illustrates certain features noted in the cases presented. Special attention has been given to the central nervous system manifestations of shigellosis.

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A complete list of bibliographic references is available from the authors with the reprints.

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Vitamin D Resistant Rickets

Diagnosis and Management

C. W. DAESCHNER, JR., M. D.

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RACHITIC bone disease refractory to the usual prophylactic and therapeutic doses of vitamin D was described by Albright, Butler, and Bloomberg in 1937.[1] They mentioned 6 cases and gave extensive metabolic studies in one 16 year old white boy who required 450,000 units of vitamin D daily. The disease present in these patients differed from typical infantile rickets in that it did not respond to usual doses of vitamin D and the deformities appeared to be more severe. Subsequent authors reported similar cases from their experience and several mentioned a familial tendency. However, it was not until the report of Pedersen and McCarroll[5] in 1951 that the frequent occurrence and marked familial incidence of this disease was emphasized.

Dr. C. W. Daeschner, Jr., from the Department of Pediatrics of Baylor University College of Medicine and the Metabolic and Endocrine Clinic of the Texas Children's Hospital, presented this paper for the Section on Pediatrics, April 23, 1956, at the Annual Session of the Texas Medical Association in Galveston.

In spite of the fact that this entity was recognized more than 19 years ago, reports continue to appear of patients who have been subjected to multiple orthopedic procedures prior to the time that their vitamin D resistant rickets was recognized. In most instances these patients are operated upon for chondrodysplastic bone disease. This report describes experiences with 8 patients with clinical and laboratory evidence of florid rickets refractory to the usual dose of vitamin D.

Vitamin D resistant rickets is characterized clinically by florid rachitic deformities of the extremities, vertebrae, skull, and costochondral junctions. Delayed growth, muscle weakness, and ease of fatigue are usually noted by the second year of life. Less commonly the patient may experience hypocalcemic tetany as his first evidence of disturbed calcium metabolism. Roentgenographic examination of the skeleton reveals a coarse trabecular pattern with generalized demineralization. The epiphyseal cartilage is poorly calcified with characteristic fraying and cupping deformities. Blood studies reveal a normal or low value for serum calcium, a marked lowering of the serum inorganic phosphorus value, and a definite elevation of the serum alkaline phosphatase (table 1).

TABLE 1.—*Typical Blood Chemical Changes in Vitamin D Resistant Rickets.*

Calcium	Normal to low
Inorganic phosphate	Very low
Alkaline phosphatase	Marked elevation
Urea nitrogen	Normal
Hydrogen ion concentration and bicarbonate content	Normal
Bilirubin and cephalin-cholesterol flocculation	Normal

These patients exhibit no evidence of gastrointestinal, renal, hepatic, or other metabolic disease. Although excessive excretion of amino acids in the urine is characteristic, the significance of this finding has not been established.

In spite of the fact that Albright and others called attention to this disease entity more than 19 years ago, reports continue to appear of patients who had been subjected to multiple orthopedic procedures prior to the time that their vitamin D resistant rickets was recognized. In Pedersen and McCarroll's series alone, 25 patients had undergone 122 osteotomies prior to adequate vitamin D therapy. In most instances these patients are operated upon for chondrodysplastic bone disease rather than rickets resistant to vitamin D.

The present report concerns experience with 8 patients from four families who have demonstrated clinical and laboratory evidence of florid rickets refractory to the usual doses of vitamin D.

CLINICAL FINDINGS

The symptoms or signs that first led these patients to seek medical care are listed in table 2. Four were referred by alert dental surgeons who were concerned over the combination of dental abscesses with dwarfism and skeletal deformity in these patients. All had been previously thought to be achondroplastic. Four others had extensive dental disease at the time of

TABLE 2.—*Summary of the First Medical Diagnosis in 8 Patients with Resistant Rickets.*

Initial Diagnosis	No. Patients
Achondroplasia	4
Rickets, resistant	2
Hypoparathyroidism	1
Rickets, simple	1

first examination. Two patients developed a convulsive disorder in the latter part of the first year of life which led to the diagnosis of hypocalcemic tetany and rickets in one and hypoparathyroidism in the second. Rickets of the vitamin D resistant type was the initial diagnosis in only 2 patients in this series.

Initial history and physical findings in these patients are summarized in table 3. Skeletal deformities

TABLE 3.—*Initial Clinical Findings in 8 Patients with Resistant Rickets.*

Clinical Signs or Symptoms	No. Patients
Dwarfism	8
Deformities of extremities	8
Dental abscesses with tooth loss	7
Positive family history	6
Convulsions	2
Weakness and failure to grow	2

characteristic of rickets were present in all 8 patients. These included bow legs, knock knees, palpable enlargement of the epiphyses, Harrison's groove, frontal bossing, and a rachitic rosary. Dwarfism of marked degree was present in 4 patients, while the remaining 4 patients showed early but definite evidence of retarded statural growth. Weakness was a prominent feature in 2 children, in one being so severe he could not sit or walk at the age of 7 years. In 4 others there was a marked delay in walking, their gait was described as slow and clumsy, and they were completely unable to run. Dental disease was characterized by root abscesses, early loss of deciduous dentition without tooth decay and for no apparent reason, defective dentine formation in both deciduous and permanent teeth, and defective enamel formation. All 8 patients exhibited an enlarged pulp chamber due to lack of dentine formation.*

Vitamin D intake was excellent by the usually accepted standards for normal subjects, in all patients, several receiving as much as 10,000 units daily. The general nutritional status was good in all but 3 patients. These children were weak, anorexic, and underweight prior to adequate vitamin D therapy. A family history of resistant rickets was present in 6 of the 8 patients studied. There were 3 involved members in one family (mother and 2 children) and 3 in another family (patient and his 2 paternal cousins). Although chemical evidence of rickets was probably present from shortly after birth, clinical changes suggestive of rickets did not appear in these patients until an average age of 17 months (range 8 to 36 months). The diagnosis of resistant rickets was established at an average age of 3½ years (range 1 to 7 years) in the 6 children studied. The 2 adult patients were diagnosed only in adult life at the respective ages of 22 and 38 years.

These changes are described in greater detail in an article to be published.[3]

LABORATORY FINDINGS

Blood chemical studies in the 3 children who had received no prior therapy revealed a mean serum calcium value of 9.1 mg. per 100 cc. (range 8.2 to 9.8 mg. per 100 cc.), a mean serum inorganic phosphate value of 2.3 mg. per 100 cc. (range 2.1 to 2.7 mg. per 100 cc.), and a mean serum alkaline phosphatase value of 30 Bodansky units (range 29 to 32 Bodansky units). The 2 untreated adults had relatively normal chemical values as might be anticipated since their epiphyseal growth was complete. The remaining 3 children had received irregular or short term therapy prior to their first visit to the clinic (table 4). Blood urea nitrogen and serum bicarbonate values were within normal limits as were routine urinalysis and blood counts.

Roentgenographic examinations (fig. 1a and b) revealed extensive demineralization of all skeletal structures with a coarse trabecular pattern, widening and cupping of the epiphyses, diminished to absent calcification in the zone of provisional calcification, and deformities of the shaft of the long bones.

TABLE 4.—*Laboratory Findings Before and After Therapy with Massive Doses of Vitamin D in Patients with Resistant Rickets.*

Patient	Vit. D USP Units x 1,000	Calcium mg./100 cc. Pre Treatment	Calcium mg./100 cc. Post Treatment	Inorganic Phosphate mg./100 cc. Pre Treatment	Inorganic Phosphate mg./100 cc. Post Treatment	Inorganic Phosphatase Bod. U. Pre Treatment	Inorganic Phosphatase Bod. U. Post Treatment	BUN mg./100 cc. Pre Treatment	BUN mg./100 cc. Post Treatment	Prior Therapy
1*	400	8.6	9.6	3.2	5.8	25	3.2	8.4	14.3	7 yr. (irreg.)
2	100	9.8	10.3	2.1	4.5	32	5.2	9	10.0	None
3	200	9.4	11.7	2.1	3.2	29	6.8	11	15.0	None
4*	300	7.8	8.2	5.1	6.1	14	2.5	14	13.5	6 mo.
5	200	8.2	11.4	2.7	4.0	29	7.1	6.1	15.0	None
6*	300	8.8	11.0	3.2	4.8	18	4.4	12	9.5	2 yr. (irreg.)
7	None	11.0	.....	1.8	.....	6.9	.....	16	.....	None
8	None	9.6	.....	3.1	.....	6.1	.....	10	.....	None

*Patients who had received prior vitamin D therapy.

MANAGEMENT

As soon as the diagnosis of rickets of the vitamin D resistant type is established, therapy with concentrated vitamin D should be instituted (table 5). We have used either 50,000 USP unit capsules (calciferol,

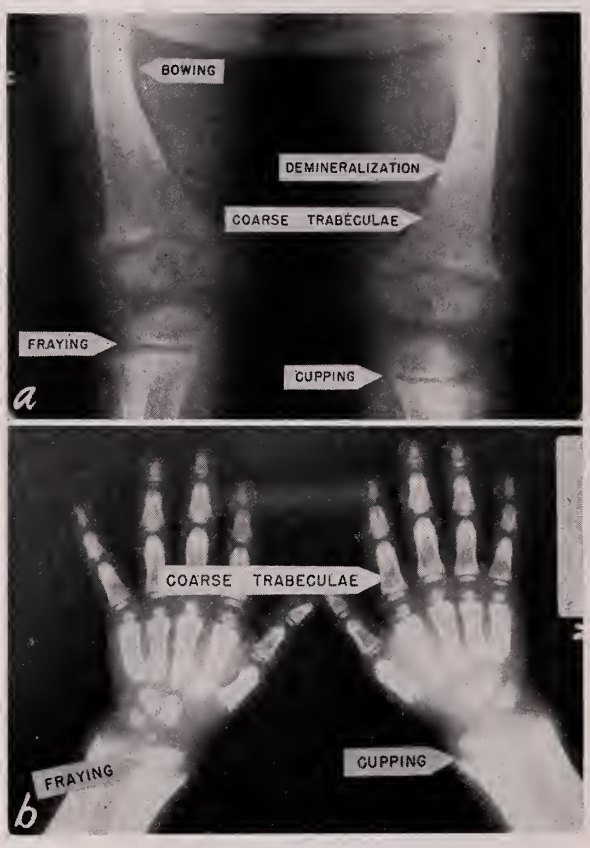

Fig. 1. a. The typical radiographic findings characteristic of vitamin D resistant rickets are illustrated. Note the absence of the normal zone of preparatory calcification of the epiphysis.

b. Roentgenographic examination of the hands of a patient with resistant rickets shows characteristic epiphyseal changes and the course trabecular pattern.

vitamin D_2) or a water miscible liquid concentrate* containing 50,000 USP units per cubic centimeter (vitamin D_3, irradiated 7-dehydrocholesterol). A convenient initial therapeutic dose is 200,000 units daily. The patient is observed at monthly intervals for evidence of toxicity or hypercalcemia. If after four to six weeks on this dose the serum calcium and inorganic phosphate values do not improve, the daily dose is increased by 50,000 unit increments every three to four weeks until chemistries improve or toxic symptoms appear. In this manner dose titration is carried out in the individual patient to select an optimal therapeutic dose. Roentgenographic status is evaluated intermittently, but because of the lag in demonstrable change by this method of examination, it cannot be used as a criterion for dose regulation.

After the patient has received an adequate therapeutic dose for a variable period (usually three to nine months), some evidence of either hypercalcemia or mild toxicity will appear. This suggests that healing is nearing completion and that a maintenance dose will be adequate; usually one-third to one-fourth the therapeutic dose. This dose then can be continued throughout the remainder of the patient's period of epiphyseal growth, and blood chemistries need to be checked only every three to four months.

TABLE 5.—*A Schedule of Treatment for Children with Vitamin D Resistant Rickets.*

THERAPEUTIC	
	Initial dose 200,000 U daily.
	Increase or decrease by 50,000 at 6 wk. intervals if necessary, that is, titrate dose.
	Check Ca, P, BUN every 2 wk. for first 6 mo.
MAINTENANCE	
	Begin when hypercalcemia or early toxicity appears.
	Gradually reduce dose by 50,000 U increment.
	Usually ⅓–¼ therapeutic dose.
	Check Ca, P, BUN, and alkaline phosphatase monthly until stable.
	Continue treatment throughout period of epiphyseal growth.

Toxicity to vitamin D occurs in normal infants and children within three to six weeks following the introduction of massive doses of vitamin D (table 6). Toxicity from the administration of excessive amounts of vitamin D also may occur in patients with resistant rickets. These signs include polyuria, polydipsia, headache, irritability, inactivity, anorexia, nausea, and vomiting. At one time it was thought that vitamin D was toxic per se; however, greater experience now suggests that the signs and symptoms of toxicity are those of hypercalcemia due to any cause. They are in effect an extension of its therapeutic action. In our experience an early sign is nocturia followed closely by diurnal polyuria, polydipsia, and headache. Less commonly the patient may go on to albuminuria, hematuria, and arterial hypertension. When any of

TABLE 6.—*Signs and Symptoms of Toxicity of Vitamin D.*

CLINICAL	
Early:	May appear in 3-6 wk.
	Nocturia—polyuria—polydipsia
	Headache—irritable—inactive
	Anorexia—nausea—vomiting
Late:	Hematuria—albuminuria
	Arterial hypertension
	Renal calcinosis
	Tissue calcinosis
LABORATORY	
Early:	Serum Ca above 11.5 mg. per 100 cc.
Late:	Elevated BUN
	Low urine specific gravity

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these signs or symptoms appear, a check of the serum calcium is indicated. If the level is above 11.5 mg. per 100 cc., vitamin D therapy should be omitted for 7 to 10 days and then restarted at a reduced dose. The evidence of toxicity disappears rapidly when therapy is discontinued, but if the warning signs remain unheeded, renal damage, tissue calcification, and persistent arterial hypertension may be anticipated.

Some writers have suggested the use of the urine Sulkowitch test for calcium (by the mother at home) as a method of vitamin D dose titration, a negative test indicating too little vitamin D, a moderate cloud being considered ideal, and a heavy cloud indicating an excessive dose of vitamin D. In our experience children on a high milk diet show wide variations in urinary calcium excretion even when the vitamin D dose is constant. Therefore, we have given up the urine test with Sulkowitch reagent in favor of careful observation of clinical symptoms and signs and bimonthly blood chemistry studies as indicated previously.

Surgical correction of residual skeletal deformities in patients with vitamin D resistant rickets who are receiving adequate vitamin D therapy presents a special problem. The acute immobilization following operation and the application of casts results in a negative nitrogen balance and leads to hypercalcemia with marked anorexia, nausea, vomiting, headache, hypertension, and the like, just as is seen with vitamin D overdosage. It is therefore desirable to discontinue vitamin D therapy prior to surgery and for the first 7 to 14 days of postsurgical convalescence. As soon as ambulation returns, however, full therapeutic doses of vitamin D will be necessary to prevent the recurrence of rachitic deformities.

CASE REPORT

CASE 1.—D. S. (fig. 2) is a 9½ year old white girl who presented the complaints of small stature, skeletal deformities, and ease of fatigue. History revealed that she was born following a normal gestation and delivery. She did well until the age of 8 months when she experienced a generalized seizure characterized by grimacing, stiffening of the extremities, stridor, and staring. She was not incontinent and did not lose consciousness. Seven more of these episodes occurred in the next 16 months, and in addition her growth was slow, she seemed weak, and she was quite irritable and failed to walk. When she was 2 years of age, an unknown amount of vitamin D was administered, following which motor abilities improved and she ceased having seizures, but weakness and ease of fatigue continued.

Family history revealed that a younger sibling, age 5 years, and a maternal cousin, age 8 years, both had vitamin D resistant rickets. Physical examination revealed a blood pressure of 100/70, pulse 84, respiration 22, and temperature 99 F. The patient had a height age of 4 years and a weight age of 3½ years at a chronological age of 9½ years. She was irritable and asthenic; appeared to be chronically ill; and had obvious deformities of the skull, extremities, and chest. Dental examination revealed several missing deciduous teeth, no erupted permanent teeth, several areas of dental caries, and generalized enamel hypoplasia. Skeletal deformities included prominence of the forehead, marked

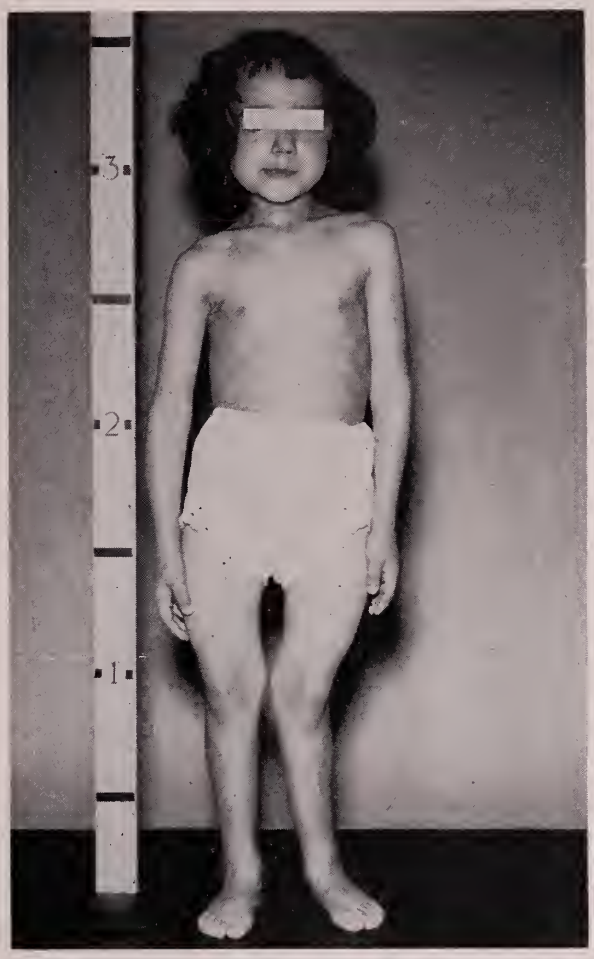

Fig. 2. Case 1. A 9½ year old child with a history of hypocalcemic tetany and severe rickets since infancy. Her disease improved rapidly on massive doses of vitamin D.

rachitic rosary, and palpable enlargement of the epiphyseal portion of the long bones of the upper and lower extremities.

Roentgenographic examinations demonstrated marked enlargement of the pulp cavities of all teeth with hypoplasia of both dentine and enamel. The long bones revealed generalized demineralization and coarse trabecular pattern of all skeletal structures with broadening, fraying, and cupping of the epiphyseal areas and absence of the epiphyseal zone of preparatory calcification.

Laboratory studies revealed a normal blood count and urinalysis, with a blood urea nitrogen of 8.4 mg. per 100 cc., a serum inorganic phosphorus of 3.2 mg. per 100 cc., a serum calcium of 8.6 mg. per 100 cc., a serum alkaline phosphatase of 25 Bodansky units, and a total serum protein of 7.5 Gm. per 100 cc.

The patient was started on 400,000 units of vitamin D_2 daily. In the next six months she grew 3 inches in height and gained 10 pounds of body weight. Her muscle strength

and coordination improved, she learned to run, and she could walk to school without fatigue.

DISCUSSION

The characteristic chemical findings of normal or low serum calcium and low serum inorganic phosphate levels of infantile rickets due to hypovitaminosis D lead to parathyroid hyperplasia in a compensatory effort to maintain serum calcium levels.[2] In most instances this is a relatively effective mechanism, for serum calcium values in rickets are usually normal or only slightly low. However, this state of secondary hyperparathyroidism causes marked inhibition of renal tubular inorganic phosphate reabsorption from the glomerular filtrate. Hyperphosphaturia and hypophosphatemia are therefore consistently present in untreated rachitic children.

The clinical picture and chemical findings are similar in vitamin D resistant rickets, but the etiology of these changes in the presence of what is usually considered adequate vitamin D intake remains obscure. No evidence of a defect in the absorption of vitamin D has been demonstrated in these patients. However, a defect in the absorption of calcium can be shown, and this defect is reversed with an adequate dose of vitamin D. These findings suggest that the fundamental defect lies at the site of action of vitamin D where a state of relative insensitivity to its normal action may exist. Further support of this theory is found in the response of the patient to adequate vitamin D therapy. A rise in serum inorganic phosphorus is an early sign of improvement in spite of the fact that massive doses of vitamin D are known to inhibit tubular inorganic phosphorus reabsorption in normal subjects, in a manner analagous to parathyroid hormone. This apparent paradox is probably explained by the difference in sites of principal action of vitamin D and parathyroid hormone. Vitamin D has its principal action on calcium absorption and relatively less influence on renal tubular phosphate excretion. Conversely parathyroid hormone exerts its greatest action on inhibition of phosphate reabsorption by the renal tubule and to a lesser extent facilitates calcium absorption from the gastrointestinal tract and bone.

A defect in phosphatase activity can cause a rickets-like state as described by Rathbun,[6] however, no qualitative or quantitative defect in alkaline phosphatase has been demonstrated in patients with vitamin D resistant rickets.

Fanconi[4] proposed that patients with vitamin D resistant rickets have renal phosphate diabetes. He suggested that these patients experience an idiopathic and continuous, maximum tubular inhibition of inorganic phosphate reabsorption as evidence by extreme phosphaturia and failure significantly to increase phosphate excretion following parathyroid hormone administration. However, it would seem that the defect proposed by Fanconi would be made worse by the known actions of massive vitamin D therapy in normal children. Furthermore, since parathyroid hyperplasia with near maximum tubular inhibition of inorganic phosphate reabsorption is already known to exist in these patients, I am more inclined to accept the classical explanation as mentioned earlier.

Differential diagnosis in patients suspected of having vitamin D resistant rickets should include a consideration of several of the rickets-like metabolic bone diseases. Hypophosphatasia is characterized principally by extremely low levels of serum alkaline phosphatase activity. Patients with cystine storage disease (Lignac' disease or Debré-de Toni-Fanconi syndrome) show crystals of cystine in the cornea by slit lamp examination, or in the bone marrow. In addition, these patients have both glycosuria and proteinuria in minimal quantities. Renal rickets is a secondary osteomalacia due to marked renal insufficiency and accompanied by a compensatory parathyroid hyperplasia. The presence of elevated serum inorganic phosphate and urea nitrogen values easily distinguish these patients.

Hepatic rickets and rickets with steatorrhea both have in common poor absorption of administered vitamin D. The clinical picture in the former, however, is dominated by severe liver disease and in the latter by such characteristics as foul, malodorous, bulky stools at frequent intervals. Chondrodysplasia (for example, achondroplasia, chondrodysplasia, and so forth) should not be confused with resistant rickets if careful attention is given to the evaluation of the serum chemistries, all of which are normal in the chondrodysplastic group of bone diseases. Osteogenesis imperfecta shows a thin cortex, usually multiple fractures, and normal epiphyseal bone in contrast to rickets in which a marked disturbance of epiphyseal bone is characteristic. Blood chemistries in osteogenesis imperfecta are also normal. Primary hyperparathyroidism is exceedingly rare in children. The clinical signs of hypercalcemia plus the presence of a marked elevation of both plasma and urinary calcium values enable the physician to distinguish these patients. Hypoparathyroidism is also rare in childhood and usually not associated with bone disease. The chemical findings in these patients are characterized by low calcium values and unusually high serum inorganic phosphate values.

SUMMARY

Rachitic bone disease refractory to the usual prophylactic doses of vitamin D sometimes may be thought to be achondroplastic bone disease and there-

fore not properly treated. Laboratory examination of the serum inorganic phosphorus, alkaline phosphatase, and calcium levels will serve to differentiate these conditions. The inevitable sequelae of untreated vitamin D resistant rickets are skeletal deformity, dwarfism, and poor dentition. Vitamin D in doses of 300,000 to 1,000,000 units daily may be necessary to promote healing initially, whereas one-third to one-fourth of this amount is usually sufficient for maintenance therapy. Toxicity to vitamin D may develop in these patients and is characterized by polyuria, thirst, headache, and anorexia. The onset of any of these symptoms is indication for immediate cessation of vitamin D administration for 7 to 10 days then reinstitution of treatment at a lowered dose level.

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Lupus Erythematosus Treated with Plaquenil

Seven patients with chronic discoid lupus erythematosus responded well to treatment with Plaquenil for two to four months' duration. The drug seems to be equal in effectiveness to quinacrine or chloroquine. It is also less toxic and does not stain.—Cornbleet, T., A.M.A. Arch. Dermat. & Syph. 73:572-575 (June) 1956.

No nation can merely reap the benefits of freedom; it also must sow seeds of freedom. In medicine the situation is the same. If an apathetic medical profession takes its freedom for granted, it will be the beginning of the end. A strong, free profession must work for freedom so that it may live in freedom. And history tells us that once medicine loses its freedom, other fields of private endeavor are immediately in danger.—Dr. Dwight H. Murray, Presidential Address before American Medical Association House of Delegates, Seattle, Nov. 27, 1956.

Albers-Schönberg Disease

J. B. McGOLRICK, M. D.; J. S. LOWRY, M. D.; and E. J. LEFEBER, M. D.

Galveston, Texas

ALBERS-SCHÖNBERG disease, or osteopetrosis, is a rare congenital condition characterized by increased density of the skeleton. Clinically, the cases may be divided into two groups, the childhood or malignant form and the adult or benign form. About two-thirds of the cases fall into the first group, which has been discussed extensively in the pediatric and roentgenologic literature. This form begins in utero or shortly after birth. The course is severe and rapidly progressive, with marked anemia, hydrocephalus, blindness, cranial nerve involvement, diminished resistance to infection, and early death. The benign or adult form is less well known. The object of this paper is to report the case history of an adult with Albers-Schönberg disease and to present a concise review of the manifestations of the adult form of the disease.

Dr. J. B. McGolrick and his co-authors presented this paper before the Section on Internal Medicine at the annual session of the Texas Medical Association in Galveston, April 23, 1956.

Osteopetrosis, or marble bones, is rare in adults, but its form is benign and prognosis is good as compared with the severe and rapidly progressive form which occurs in children. ACTH and prednisone were used to treat the hematologic disturbances associated with the disease in a 45 year old adult, and a complete case history is presented.

CASE 1.—A 45 year old Negro woman was admitted to the John Sealy Hospital April 19, 1955, with a three year history of increasing weakness and a progressively enlarging mass in the left upper quadrant of the abdomen which was associated with dull aching pain radiating to the chest, back, and left thigh. For the preceding six months she had noted frequent episodes of numbness and tingling in the arms and legs and the daily occurrence of cramping pains in the feet, ankles, thighs, and sacral area. She had been treated by her

local physician for anemia with equivocal results. Her past medical history was irrelevant. At least 2 of her 14 siblings are known to have "marble bones disease." Another sister died at the age of 36 years with anemia and a mass in the left upper abdominal quadrant. Two of the patient's six children died in infancy, one from causes unknown, the other from pneumonia. The remaining four are living and well.

On physical examination the vital signs were within normal limits. The head and neck were not remarkable except for pale mucosae and some carious teeth. The heart and lungs were within normal limits except for a grade 2 blowing systolic murmur heard at all valve areas. The liver edge was palpable 3 cm. below the right costal margin and was firm, smooth, and nontender. The spleen was firm, was nontender, and extended to the midline medially and below the iliac crest inferiorly. The remainder of the physical examination was within normal limits.

On admission, blood studies showed hemoglobin, 7.6 Gm. per 100 cc.; erythrocyte count, 3,410,000 per cubic millimeter with reticulocytes, 7 per cent; normoblasts, 1 per 100 white blood cells; erythroblasts, 1 per 100 white blood cells; platelets 81,840 per cubic millimeter; hematocrit level, 28 volumes per cent; mean corpuscular volume, 82 cubic microns; mean corpuscular hemoglobin, 22 micromicrograms; mean corpuscular hemoglobin concentration, 27 per cent; white blood count, 6,900 per cubic millimeter. The differential count demonstrated a marked left shift in the myeloid series. Other laboratory determinations included total serum protein, 7.8 Gm. per 100 cc.; serum albumin, 3.8 Gm. per 100 cc.; serum globulin, 4.0 Gm. per 100 cc. Serum electrophoresis showed a decrease in albumin and a slight increase in gamma globulin. Serum calcium was 4.1, 4.5, and 4.4 milliequivalents per liter, and inorganic serum phosphorus was 2.5 and 2.9 milliequivalents per liter. Alkaline phosphatase measured 1 Bodansky unit; total serum bilirubin, 0.9 mg. per 100 cc. with 0.2 mg. per 100 cc. direct; and thymol turbidity, 7.3 units. A bromsulfalein liver function test was normal, and cholesterol was 119 mg. per 100 cc. of blood. Urinary calcium excretion on a low calcium diet was 37 mg. per 24 hours and in another determination 59 mg. per 24 hours, and urinary phosphorus excretion was 91 mg. per 24 hours and 171 mg. per 24 hours, respectively. The VDRL test for syphilis was negative.

A sternal bone marrow aspiration attempt was unsuccessful because of increased density of the bone; therefore, surgical biopsy of the right iliac crest was done. The bone was found to be extremely hard. No marrow cavity was located. The pathologists reported the biopsy specimen to have the histologic features of osteopetrosis. Needle biopsy of the liver showed normal hepatic tissue with no evidence of extramedullary hematopoiesis. Roentgenograms demonstrated the characteristic bony changes of osteopetrosis.

The patient was given ACTH and prednisone in the hope of favorably influencing her hematologic picture. It did improve, though not remarkably. The liver and spleen regressed somewhat in size. Symptomatic improvement, however, was marked. She has been followed for a period of 10 months, during which time she has continued to feel good and has been able to do her housework and other chores. She was readmitted to the hospital June 29, 1955, because her platelet count fell to 29,000 per cubic millimeter. This improved when the dosage of ACTH and prednisone was increased. She is still asymptomatic. Her most recent blood study showed hemoglobin, 8.2 Gm. per 100 cc.; red blood count, 2,740,000 per cubic millimeter; reticulocytes, 7.6 per cent; platelets, 115,520 per cubic millimeter; and white blood count, 9,400 with a persisting left shift of the myeloid series.

DISCUSSION

The first clinical case of osteopetrosis was described by Albers-Schönberg in 1904.[1] Subsequently the condition has been called marble bone disease, osteitis fragilis generalisata, osteosclerotic anemia, and "chalky bones." Thirty years later, a total of 66 cases had been reported in the literature.[7] Of this group, only 20 were in persons 20 years of age or older, and at least 50 per cent were in patients less than 12 years of age. By July, 1952, a total of 202 cases was to be found in the literature.[4] The increasing use of diagnostic roentgenology is said to have accelerated the case finding rate.[4] The disease is most commonly found in infancy and childhood. It manifests no predilection for either sex. It has been found in many races. Five reports,[2, 3, 5, 6, 9] including 8 cases, of osteopetrosis in the Negro race were found in the literature.

The cause of Albers-Schönberg disease is unknown, and it has been said to be the result of an unknown factor or factors which apparently affect the mesenchymal anlagen of the osteogenic tissues.[4, 7, 12] Infection, disturbance of calcium and phosphorus metabolism, dietary deficiency, environmental factors, chemical poisons, and endocrine imbalances have been suggested but have been discounted as etiologic factors. The evidence is much stronger for the factors of heredity and consanguinity. Hinkel and Beiler[4] stated that nearly half the adult cases and two-fifths of all cases reported are familial. They indicated that analysis shows a 1:1 ratio for involved to uninvolved siblings. Consanguineous marriage has been reported in association with approximately 20 per cent of the patients with osteopetrosis. Genetically, the trait for the disease is probably recessive.[7]

Descriptive pathology of osteopetrosis has come in the main from study of those dying from the rapidly progressing form of this disease. Since this occurs during infancy and childhood, the pathologic picture of osteopetrosis as it occurs in adults is sketchy due to the paucity of cases. Most of the knowledge about the latter has been obtained by study of biopsy material. Since this paper will outline essential features only, reference is made to comprehensive review articles for detailed descriptive pathology.[8, 12]

An increase in the density of the cortex and spongiosa of the bones is a characteristic pathologic feature (fig. 1). The bones are generally found to be hard, heavy, dense, thick, and brittle. The marrow cavity is reduced in size and may even be absent. Membranous as well as endochondral bones are involved. Histopathologically, the diagnostic features are "dense cement lines, faulty cartilage and bone resorption, scanty marrow elements, excess osteoid tissue, excess calcified matrix, and abnormal persisting chondroid tissue. . . ."[4] Zawisch[12] pointed out that whereas the histopathologic picture of the disease in

the adult may progress toward a normal bone histology, there is always evidence of lagging resorption which accounts for the thickened cortex. A scarcity of fibrils has been reported.[4,12] Osteoclasts and osteoblasts are said by some to be present in normal numbers.[4] Chemical analysis of these bones has shown no abnormal chemical elements nor any significant deviation from the normal inorganic constituents of adult bones. Extramedullary hematopoiesis has been reported in the malignant form;[7] others have not found any evidence of such a process even though the lymph nodes, liver, and spleen were enlarged.

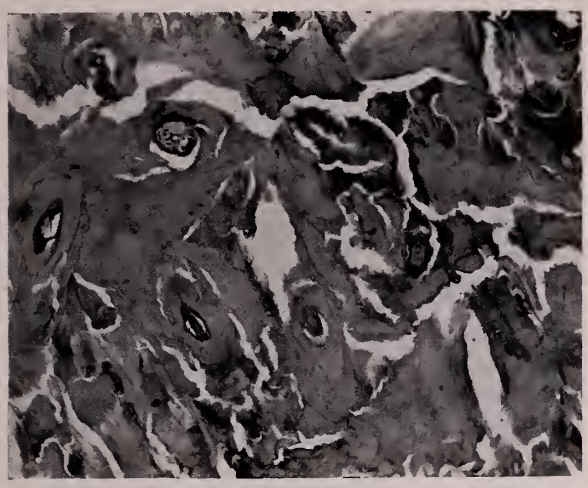

Fig. 1. Photomicrograph showing dense cement lines, thickened trabeculae, and crowding of the marrow spaces with an absence of hematopoietic elements.

The clinical picture of osteopetrosis in the adult is benign and undramatic when compared to that of the more malignant form seen in the younger age groups. In each the diagnosis is based on the roentgenographic findings. Many times the disease is asymptomatic. A history of frequent fractures or the occurrence of pathologic fractures may suggest the disease. The symptoms of severe anemia, as in the case reported, may expose the patient to a diagnostic study which would reveal the disease. Hinkel and Beiler,[4] in an analysis of 25 adult cases compiled from the literature, found approximately 45 per cent of the group asymptomatic and only 28 per cent with symptoms other than pathologic fractures. Severe anemia, clubbing of the long bones, palpable liver and spleen, and osteomyelitis were rather uncommon.

The characteristic radiologic features of osteopetrosis are the sine qua non for establishing the diagnosis. Bilaterally symmetrical increase in density of the bones accompanied by a loss of the normal tra-

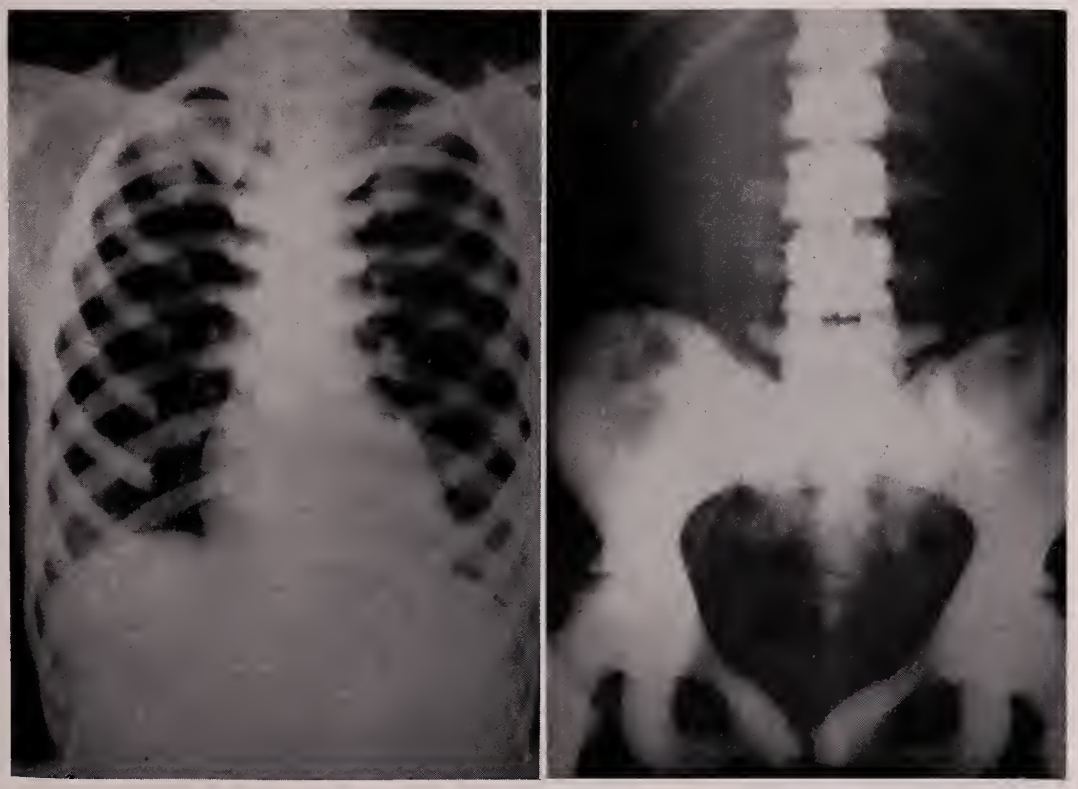

Fig. 2. Left. Roentgenogram of the chest illustrating the generalized symmetrical increase in density of the ribs, clavicles, and scapulae.

Right. Anteroposterior roentgenogram of the pelvis and lumbar spine which demonstrates the marked increase in density of the vertebral bodies, pelvis, sacrum, and proximal ends of the femora.

becular pattern is the essential feature (fig. 2, left). Not all bones are involved, nor all to the same degree, although the disease is generalized. The spine, pelvis (fig. 2, right), posterior clinoids, and the proximal and distal ends of the femurs are most commonly involved. In mild cases density may be found only in the metaphyses of the long bones. On the other hand, the entire bone may be so dense that the medullary cavity is not seen. Transverse or longitudinal bands of alternating greater and lesser density may occur, most commonly near the ends of the long bones. Central enclosures of dense bone, surrounded by one or more alternating concentric layers of greater or lesser density are found at sites of previous ossification centers. Descriptive terms such as "bone within a bone" have been used to describe such changes. They are usually seen in the ribs, pelvis, epiphyses, carpal, and tarsal bones. The vertebral bodies characteristically have a dense plate at the upper and lower borders with a less dense area sandwiched between (fig. 3, left). The statement has been made that "club-like thickening of the posterior clinoid processes and narrowing of the sella turcica are invariable findings and one should hesitate to confirm the diagnosis of osteopetrosis in the absence of this feature"[7] (fig. 3, right). Evidence of old or recent fractures may be noted frequently. These are usually transverse and occur at sites of stress. Neither the articular cartilage nor the periosteum is involved in the disease in most cases. Since there is normal fusion of the epiphyses with the shaft, the bones are usually normal in length.

Blood chemical studies disclose no characteristic abnormalities. The serum acid and alkaline phosphatases, calcium, and phosphorus levels are usually within normal limits.

As has been noted earlier, hematologic disturbances, especially severe anemia, are common in the childhood type of this disease, but uncommon in the adult type. In the series of 25 cases of osteopetrosis in adults reported by Hinkel and Beiler,[4] 9 were found to have anemia, but in only 3 of these was it marked. Only 3 patients had palpable livers and 2 had palpable spleens.

The severity of the anemia is not always directly proportional to the extent and degree of bone involvement. Thus, some authors believe that the common concept of physical displacement of the marrow and myeloid metaplasia of the spleen, liver, and lymph nodes does not explain the hematologic abnormality. Hinkel and Beiler[4] have suggested that there may be three principal causes for the anemia which probably complement each other. These are:

"1. Deficiency of the undifferentiated mesenchymal cell (the common ancestor of bone and blood forming tissues).

"2. Absence of hematopoietic stimulation which normally results from bone resorption.

"3. Physical crowding within the narrow medullary cavities." We believe that in our case, the anemia and thrombocytopenia may have been further aggravated by a secondary hypersplenism.

Fig. 3. Left. Lateral view of the thoracic spine showing the abnormally dense superior and inferior plates of the vertebrae giving the characteristic "sandwich" appearance.

Right. Lateral skull film demonstrating thickening and clubbing of the posterior clinoid processes, narrowing of the sella turcica, and generalized increase in density of the base of the skull.

The anemia is usually hypochromic in character.[7] The erythroid series usually shows a shift to the left with normoblasts being prominent in the peripheral blood.[11] Reticulocytosis is generally present and of moderate magnitude. The myeloid series is commonly normal in adults with anemia. However, there may be a marked left shift with numerous immature myeloid elements in the peripheral blood. When this occurs and is associated with hepatosplenomegaly, as it was in our case, the picture readily may be confused with leukemia. Thrombocytopenia has been an inconstant finding in the literature.[7] In our patient it has been a recurring problem. On one occasion, immediately prior to her second admission, the platelet count reached a low of 29,400 per cubic millimeter.

Differential diagnosis of the adult form of osteopetrosis includes myelosclerosis; fluoride, lead, bismuth, and phosphorus poisoning; lymphoblastoma; metastatic osteoblastic carcinoma; Paget's disease; infectious osteitis; syphilis; tuberculosis; and condensing osteitis of Sicard. Since the histopathology of the bones in this disease is characteristic, establishment of the correct diagnosis, in the final analysis, may be based upon the microscopic characteristics of the biopsy specimen in doubtful cases.[8]

The prognosis for adults with this disease is relatively good. Since osteopetrosis throughout its course occasionally may undergo periods of exacerbation and remission, spontaneous arrest, or even regression, it is not necessarily incompatible with long life. Death in adults may be due directly or indirectly to the anemia or may come from some cause unrelated to the disease.

No form of beneficial therapy has been found, although a large number of substances has been tried. The anemia, in some cases, has responded favorably to relatively simple measures such as the administration of iron or liver extract. The severe grades of anemia have required blood transfusions. In addition to two whole blood transfusions, our patient was given ACTH and prednisone in an attempt to diminish the effect of hypersplenism and to stimulate hematopoiesis, using the platelet count and hemoglobin determination as our guides to therapy. By varying the dosage of these two drugs, we have been able to maintain the platelet count above critical levels and to eliminate the need for blood transfusions. Initial dosage of ACTH was 60 units, rapidly reduced to maintenance levels with none being given during the past four months. Prednisone has been varied between 30 and 10 mg. daily. For the past eight months she has been taking 20 mg. in four divided daily doses. There are two other reports of the use of such therapy.[3, 10] No beneficial effect was recorded by these observers.

On theoretical grounds, splenectomy would seem to be contraindicated in most cases; however, where hypersplenism is a major factor, this procedure might be expected to be of value. In several cases in which this was done, the patient was neither benefited nor harmed.[7]

SUMMARY

The case history of a 45 year old Negro woman with osteopetrosis is presented. The manifestations of the adult type of osteopetrosis are reviewed. Comment is made about the effect of ACTH and prednisone on the hematologic disturbances associated with the disease in this patient.

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Chronic Discoid Lupus Erythematosus

Twenty-two cases of chronic discoid lupus erythematosus were treated with Plaquenil in doses of 200 to 800 mg. daily. The drug was found to be effective in untreated cases in cases previously refractory to or intolerant of the other antimalarials. High doses may cause side effects such as diarrhea, intestinal cramps, and nausea.—Lewis, H. M., and Frumess, G. M., A.M.A. Arch. Dermat. & Syph. 73: 576-581 (June) 1956.

We must always remember that God made us physicians for the patients and did not make the patients for us.—Francis M. Forster, M.D., J.A.M.A. 163:105 (Jan. 12) 1957.

Hearing Losses In Dallas School Children

LUDWIG A. MICHAEL, M. D.

Dallas, Texas

A FEW YEARS ago the otolaryngological journals published some interesting results of a well studied hearing survey of the school population of a rural area in Illinois.[3] These results were based on tests on a screened group of about 500 children who had a hearing loss. Admittedly, the standards set up for this particular screening were exacting, but all children who did not meet them were referred to their physicians. The findings showed that some of the children, whether or not they received medical treatment, tended to show an improvement in threshold. Furthermore, somewhat surprisingly, the extent of the improvement was the same whether or not the children received medical treatment. These findings were provocative, and when another study conducted in an urban school system led to the same conclusion,[11] it was thought that an evaluation of findings in the Dallas school system might be interesting.

Dr. Ludwig A. Michael, Dallas, presented this paper before the Texas Medical Association's Section on Eye, Ear, Nose, and Throat April 24, 1956, in Galveston.

Hearing disorders in children of school age can be discovered by large-scale surveys, and the method used in the Dallas public schools is described. By checking the hearing of each child while he is in the first few years of school, avoidable hearing loss may be prevented through early treatment, and unavoidable losses may be compensated for by special education and medical therapy.

TECHNIQUE

Historically, speech therapy has been part of the special education offered by the Dallas public schools for many years. It has been only in the past six years, in common with a stirring of nationwide interest in the problem of selecting the hard of hearing within the school population, that the testing of hearing has become routine. Audiometry in the Dallas public schools is done by a group of technicians whose sole function is the hearing survey. Their schedule is set up in the fall and they circulate in the course of a school year through all the elementary schools in Dallas. Screening is done in the first, third, fifth, and seventh grades. High school students are tested when teachers request it or when there is a history of previous hearing loss in grade school.

Since the procedure followed is most complete in the third grade, it will be described first. Initially, group pure tone testing is performed using the Massachusetts group test. In 1948, Johnston, of the Child Growth and Development Section of the Massachusetts Department of Public Health, described a test investigated and used by the department and since known as the Massachusetts group pure tone test.[8] He suggested the use of the audiometers from the Western Electric group phonographs which were widely used and available. To each audiometer may be connected up to 40 receivers for simultaneous testing. The frequencies tested have evolved to 500, 4,000, and 8,000 cycles per second. The intensity varies; the Dallas audiometers were set at 20 decibels for all three frequencies. Each frequency is tested in each ear six times. A child fails if he gives more than two incorrect answers for a tone. In 1952 Johnston advocated the use of the Massachusetts pure tone test for first graders, by having them take the test in groups of 10 and responding by a show of hands rather than by written responses.[7] This modification, however, has not been utilized in Dallas.

All those who fail the initial Massachusetts test in the third grade repeat the test. In Dallas third graders, the failure rate is between 20 and 25 per cent, which is about the expected rate. Peterson[13] has found that when a Western Electric or Maico audiometer is used in a pure tone screening test, 22 per cent of children fail the first test, and 8.7 per cent the second test. Those Dallas children who fail the second test are then given an individual sweep check, setting the audiometer at 20 decibels and sweep testing the frequencies from 250 to 8,000 cycles per second. This test is rapid, taking about three minutes per child. The next child in line is allowed to watch the one taking the test so that indoctrination is easy. Finally, those failing the sweep test are given an individual pure tone threshold test, again using frequencies from 250 to 8,000 cycles per second.

The same procedure is followed in the fifth and seventh grades, except that only one Massachusetts group pure tone test is given. Any children who fail this are immediately given the sweep check at 20 decibels and, failing this, they take the individual

pure tone threshold audiometer test. In the first grade the Massachusetts test is not used. The children are given an individual sweep check at 20 decibels, and those who fail are given pure tone threshold audiometer tests.

Obviously, individual threshold audiograms take the most time but represent the smallest number of tests. Sweep checking is individual but rapid, and at three minutes per child, one technician can test 100 children in a school day. The Massachusetts test, given 40 at a time, makes possible 400 tests a day, but the high percentage of repeats cuts down on the actual number of children tested.

Standards of failure vary. In Dallas, on the final pure tone threshold audiogram, a hearing loss of greater than 20 decibels in two frequencies in one ear is considered a failure and is reported to the school nurse for action. She refers the child to his physician by clipping the audiogram to the standard referral form and sending it to the parents. After the physician's comments are recorded the form is returned to the school nurse.

The two principal methods of testing and screening a school population have been mentioned, and both are in use in Dallas. Many other screening programs also use a combination of both, while some areas prefer one type of test to the other. These two methods are the individual test (using rapid sweep testing) and the group test where up to 40 children at a time can be tested. Individual testing is more accurate, but also more time consuming. As for group tests, the Western Electric phonograph fading numbers and the Massachusetts pure tone are by far the most widely used. The Western Electric uses a calibrated phonograph record with stepwise reduction in the intensity of the numbers presented as the test material. After initial calibration, any desired level could be set up as the screening level and the children's written responses graded to select those who do not respond correctly. The original description of the Massachusetts test mentioned its reliance on equipment previously used for group testing by the Western Electric method. The trend away from the use of spoken material for testing on a group basis and toward the use of pure tones has been as marked in the group testing program as has been the adoption of tests utilizing speech material for the evaluation of social adequacy in individuals. It had long been felt that the phonograph number test with its emphasis on vowel recognition, was not completely adequate. Many high tone losses were going unrecognized. Several studies show much the same conclusion.

In one such study, Johnson and Newby[6] compared the ability of these two tests to screen a school population. Both of these tests, plus an individual pure tone sweep at the 15 decibel level, were given to 1,496 children. A total of 7.35 per cent of the children failed this, using the criterion of a 20 decibel loss at two frequencies or 30 decibels at one frequency. The Massachusetts test was administered at 20 decibels at 500 cycles per second, 25 decibels at 4,000 cycles per second, and 30 decibels at 8,000 cycles per second. As is customary, six trials were given at each frequency with a deviation of more than two from correct considered a failure. The children then were given a second group test, and those failing both tests were considered hard of hearing. The efficiency of the Western Electric and Massachusetts tests were now compared, using the pure tone individual test as the standard. Obviously, the efficiency of screening tests such as these depends on two factors, (1) how well they pick out those with impairments, and (2) how well they pick out those with normal hearing. In other words, a truly efficient test not only should fail all with defective hearing but, equally important, should pass all with normal hearing. The comparative tests in this study showed that with the Western Electric test, 4.8 per cent passed who should have failed and 5.6 per cent failed who should have passed; therefore 11.4 per cent were misclassified. The Massachusetts test passed 1.3 per cent who should have failed and failed 1.3 per cent who should have passed, misclassifying only 2.6 per cent. Thus, the criteria used by Johnson and Newby indicates that the pure tone group test does a better job of screening hard of hearing school children than the more venerable fading numbers type of group test.

SCREENING RESULTS

In a survey of Pennsylvania schools reported by Landis in 1952,[10] the failure rate in screening was 4 per cent in Philadelphia, 2.2 per cent in Pittsburgh, and 3.8 per cent in the rest of the state. A total of 43,932 children with hearing losses was reported, with 17,866 being referred to a panel for otological examinations and 13,418, or 75 per cent, being examined. In Pennsylvania the group testing methods have been given up in favor of pure tone sweep checking. It was thought that there were too many repeats and referrals from the group test and some children tried too hard and copied from others. Following the sweep check, individual threshold audiometry was used for those whose hearing was below 15 decibels.

In the extensive survey by Guild and co-workers[4] in Baltimore in 1939-1940, which was done to evaluate the efficacy of the use of radium in the nasopharynx, 2.8 per cent failed the Western Electric phonograph speech test, and 4.3 per cent failed the pure tone test.

In a Chicago study on the testing of 36,692 children, first giving the group pure tone test and then an individual pure tone threshold test, it was found that 2.8 per cent had significant hearing losses.[14] Significant in this study meant losses of 30 decibels or more in two or more frequencies. Such children were referred to a special clinic for an otological examination, and from there the referral to the child's private physician was made. It is interesting to note in this study that the child's parents had no suspicion of any hearing difficulty in 54 per cent of the cases.

The figures for Dallas are rather in line with others quoted. Of 4,318 children tested in this report, 105 or 2.4 per cent failed to meet the standards.

MEDICAL ASPECTS

In opening this discussion the rather discouraging prospect of the apparent lack of benefit from medical attention was introduced. In spite of this the importance of finding the hard of hearing children in the school population has long been stressed. Otologists have shown that those whose hearing loss is remediable can be completely rehabilitated. Educators have shown that those who cannot have their hearing losses removed medically and have difficulty in maintaining progress in school can be rehabilitated by special education programs. Kinney[9] has emphasized the four important points in a good school conservation of hearing program:

1. Screening tests.
2. Individual otological examination.
3. Classification and disposition of cases.
4. Adequate follow-up methods.

The effects of screening show up significantly in some studies. In a series reported from Denmark,[12] a school district had been using pure tone group audiometry since 1941. Then in 1945 the school district was expanded. The routine tests on the previously untested children from the new additions to this school district revealed a markedly higher incidence of children with moderate losses while the number of children with mild losses was about the same in the previously tested and untested groups. In addition, the results of screening were shown in the finding that losses tended to be greater in the lower grades.

The next step after screening is the referral to the physician for medical evaluation. Various methods are used to effect medical contacts. Some test groups choose universal referral to a special otological clinic set up for the purpose; others depend on individual referrals to family physicians. Still another utilizes an otological panel which then refers children to their physicians if the panel feels that medical therapy is indicated. Dallas depends on referral to physicians by the school nurse.

In this study, all children who did not return the school referral form with a physician's comments were considered untreated even though in some instances comments by the school nurse indicated that the parents stated they were going to take the child to their physician.

Of the 50 children reported, 37, or 74 per cent, sought medical attention. This compares favorably with the 32.5 per cent of the Chicago group who consulted a physician or went to a clinic, and the 44 per cent who were treated in Curry's study. Only 25 per cent of the Chicago children consulting a physician went to an otologist, or 8.1 per cent of the students with impaired hearing. The Dallas study showed that 20 of the 37 children who consulted a physician saw an otologist. Credit for this, without any doubt, should be accorded the school nurses, who play the important role in getting the Dallas children into medical hands by the persistence of their follow-up and strength of their suggestion. Home calls are made if action by the parents is too slow.

In evaluating the effects of a screening program and correlating it directly with medical care, all children in a random group of schools in Dallas were included. This totalled 4,318 children, of whom 105, or 2.4 per cent, did not meet the standards mentioned. However, for a comparison of the effects of medical treatment over a one year period it was found that only 50 of these had audiograms in two successive school years, 1954-1955 and 1955-1956. The averages for 500, 1,000, 2,000, and 4,000 cycles per second were taken. Those that changed in the one year period by more than 10 decibels in their average were accepted as representing significant changes. Of the total of 100 ears, 11 improved, 11 got worse, and 78 remained unchanged. Of the 11 improved ears 10 had medical attention and 1 did not. Similarly, of the 11 worse ears, 10 had medical attention, 1 did not.

Can any conclusions be drawn from these findings? Obviously this series is so small that no significance is assignable to the number or extent of the change. No conclusions have any statistical validity except one, and that is that of the 22 ears that changed in the one year interval, 20 had medical attention. Medical attention, in this group at any rate, was associated with a change, whether for the better or worse. This makes a quote from Crowe[1] apropos: "There is no question that the hearing of many children improves markedly as a result of the regression of middle ear lesions after shrinkage of the nasopharyngeal lymphoid tissue, but in statistical analyses of large groups these improvements are offset by the impairments caused by progressive lesions whose course cannot reasonably be expected to be influenced

by the therapy." Thus the finding that all but one of the ears that improved had medical attention is significant in spite of the 10 of 11 ears that got worse.

Curry's rural Illinois study[2] showed that 15 per cent of the boys and 10 per cent of the girls showed a hearing loss. This high figure is due to the standard of a loss of 30 decibels or more at any one frequency from 256 to 11,584 cycles per seconds being used. In a comparison of spring and fall audiograms in this group an improvement in the averages for each frequency of 15 to 23 decibels was shown. It was noted that the previous winter and spring had been inclement. Further, in comparing the change in the treated and untreated children the conclusion was reached that thresholds in children who received medical treatment tended to show the same improvement as those in the untreated. In one Chicago study,[14] of those who improved in their hearing 37 per cent had medical care and 63 per cent did not. This shows a similar lack of correlation between improvement and medical care. On the other hand, other Chicago figures[11] show that of a group of 304 children who were advised to have, and in fact did have, medical care 58 per cent improved and 8 per cent got worse. Of those advised to seek help but who did not, only 32 per cent improved and 10 per cent got worse. Guild,[5] reporting in 1950 on a six year follow-up of the effects of nasopharyngeal irradiation on high tone losses, commented that there were no changes as compared to the untreated group. Furthermore, about half of 24 ears that were impaired for all frequencies improved, but whether the improvement was due to the treatment was questioned. A lack of homogeneity of many factors was indicated and it was believed that some of the changes were spontaneous.

The doubts that these figures may cast should be dispelled by further investigation. More work needs to be done to provide solutions to some of the questions that need answering, and more data should be sought. Do the losses represent progressive unresponding hearing loss? What are the factors that influence parents in seeking medical attention? If so many parents are not aware of significant hearing loss in their children, does it take a progressive loss to get Johnny to the otologist? Do statistics show as medical therapy the conscious efforts of otologists to minimize progression by measures aimed at eliminating abnormal conditions about the sinuses or nasopharynx even though they are fully aware that they are working more in hope than in expectation? Should bone conduction studies be added to the last stage of the screening process?

The conservation of hearing program in the public schools is valuable precisely for its awareness of individual values in public health. It brings to attention, by weeding out of the general school population, those children who might be salvaged in their early years. By finding them not only in the first grade but by constant checking thereafter it saves some children from the preventable hearing losses of later life and also permits them to make a better adjustment and a more complete integration in their daily school life. It is a spur to better methods of testing, better special education, and better medical therapy. Conservation of hearing programs make the otologist aware of the public health aspects of his field and conscious of the active role he plays in preventive medicine. By constant screening are found those relatively few to whom therapy can mean so much.

Grateful acknowledgment is made of the assistance of Miss Margaret Harris, consultant in special education, Dallas Independent School District.

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Correction: Traumatic Stomach Rupture

Dr. Robert Franken, San Angelo, and Dr. Frank R. Barker, Sweetwater, authors of the article entitled "Traumatic Subcutaneous Rupture of the Stomach" published in the March issue of the *Texas State Journal of Medicine,* pages 164-166, have called attention to an error in the original presentation. It was stated that approximately 72 hours elapsed between the injury and surgery; the elapsed time should have been stated as 21 hours.

Vaginal Hysterectomy in a Charity Hospital

STANLEY F. ROGERS, M. D., and JACK MOORE, M. D.

Houston, Texas

THE POPULARITY of vaginal hysterectomy has waxed and waned over the past century. In the past the complicity of many, if not most, of the techniques is probably the chief reason for their lack of popularity. Gray,[5] in his monograph on vaginal hysterectomy, has attributed much of the present popularity of vaginal hysterectomy in this country to the large series of cases presented by Campbell,[2] of the Presbyterian Hospital in Chicago. However, there have been many other names associated with vaginal hysterectomy that deserve their share of credit for having promoted the operation in our time. Among

Dr. Stanley F. Rogers and his co-author are with the Department of Obstetrics and Gynecology, Baylor University College of Medicine. This paper was presented for the Section on Obstetrics and Gynecology, Texas Medical Association annual session, April 23, 1956, in Galveston.

This paper describes a simplified method of vaginal hysterectomy which the authors believe results in less loss of blood and fewer postoperative complications than other methods currently in use. All the 157 operations reported were performed at the Jefferson Davis Hospital by the resident staff.

these are Heaney,[7, 8] Allen,[1] Campbell of Montreal, and Kennedy,[12] the Mayo Clinic—mainly contributions by Charles Mayo[13] but more recently by Counseller,[3, 4] and many of the hospitals in Chicago. Many contributors have been neglected in this list, but their works are all summarized by Gray.[5] His monograph is itself a fine contribution to the recent enthusiasm for the procedure.

We believe that the accelerated popularity of vaginal hysterectomy is due more to the newer trends in simplicity of technique than to any other single factor. These newer trends have no one place of origin, but consist of adaptations of portions of various techniques, all of which, when combined, make the operation simpler, quicker, and attended by less blood loss and by fewer postoperative complications than before.

The present study at Jefferson Davis Hospital represents a series of 157 cases, completed over a three year period. All of these operations were carried out entirely by our resident staff. The large majority of vaginal hysterectomies performed here utilize the technique that we shall describe, which in this series include all but 24 cases.

During this three year period from July, 1952, to June, 1955, there were 157 vaginal hysterectomies performed in this hospital, compared with 457 abdominal hysterectomies, 7 of which were subtotal (table 1), which shows that a percentage of 34.4 of all the hysterectomies during this period were performed by the vaginal route.

TABLE 1.—*Incidence of Vaginal Hysterectomies and Abdominal Hysterectomies, 1952-1955.*

Year	Hysterectomies: Vaginal	Hysterectomies: Abdominal
July-Dec., 1952	19	60
1953	52	129
1954	51	199
Jan.-June, 1955	35	69
Totals	157	457

AGE AND PARITY

Table 2 shows the age and parity of the patients in our series. It is noteworthy that a large number were operated upon in their twenties and thirties. This is due to the fact that clinic patients, by and large, achieve greater parity at an earlier age, and, therefore, pelvic defects requiring surgical correction occur correspondingly early. The total number of white patients is far greater than the number of Negro patients operated upon, in spite of the fact that approximately 75 per cent of all deliveries at the Jefferson Davis Hospital are of Negro patients.

TABLE 2.—*Age and Parity of Patients Having Vaginal Hysterectomies.*

Age	No.	Negro	White	Parity 1	2	3	4	5	6	6+
20-29	18	8	10		2	2	4	6	4	
30-39	57	12	45	1	7	6	9	10	6	18
40-49	37	15	22	4	4	6	1	5	3	14
50-59	17	5	12		3	3	1	2	2	8
60-69	21	3	18	1	1	2	4	4	3	7
70-79	6		6		1		1	1	1	2
80-89	1		1							1
Totals	157	43	114	6	18	19	20	28	19	50

This, we believe, is due to the inherent greater tissue elasticity and support in Negro patients. Perhaps this increase in elasticity of smooth muscle structures is the reason for the increased incidence of hypertension and toxemia in Negroes.

It is our opinion that an existing pelvic defect of uterine prolapse, symptomatic cystocele, and rectocele warrant proper correction according to the merits of the individual case; age is not the chief factor.

INDICATIONS

The most common indication for hysterectomy is uterine prolapse associated with cystocele and rectocele. In classifying the patients with cystocele, the great majority of these had urethrocele with symptoms of stress incontinence as well. We rarely see a urethrocele or cystocele unassociated with the other, and repair of the anterior vaginal wall aims at correction of both.

We feel that vaginal hysterectomy is not in competition with abdominal hysterectomy. Each case is judged on its own merits as to whether the best result will be achieved by the vaginal or abdominal route. It is our policy not to attempt vaginal hysterectomy in the presence of adnexal disease, fixation of the uterus, or in cases where the size of the uterus is larger than the fetal skull.

TABLE 3.—*Indications for Vaginal Hysterectomy in 157 Cases.*

Condition	Incidence
Uterine prolapse, cystocele, & rectocele (1 with urethral polyp)	63
Cystocele & rectocele	26
Complete procidentia	13
Fibroids, cystocele, or rectocele	10
Functional uterine bleeding	9
Uterine prolapse, cystocele only (1 with urethral diverticulum)	8
Endometrial hyperplasia	7
Fibroids, uterine prolapse, cystocele, & rectocele	6
Fibroids (1 with endometriosis)	6
Carcinoma in situ	6
Adenomyosis	5
Cystocele (1 multiparity)	4
Uterine prolapse, with rectocele	2
Cystocele, rectocele, & chronic cervicitis	2
Mental defective, multiparity	2
Previous Watkin's interposition	1
Uterine retroversion	1
Dysmenorrhea (congestion syndrome)	1
Chronic endometritis & pyometrium	1

Five vaginal hysterectomies were performed by morcellation. The reasons for performing these were extreme obesity, deep pelvis, or a large cystocele or rectocele with uterine myomas. Morcellation represented an attempt to avoid more than one approach to the necessary surgery, especially when abdominal surgery is contraindicated.

Twenty-eight patients with cystocele and rectocele had no uterine prolapse, and vaginal hysterectomy was performed in addition to the repair of these relaxations because the women were usually of great parity, and it is considered that the repair of the cystocele and rectocele is far more effective when the uterus is removed at the same time. This is for reasons of the immediate anatomic dissection, and because further pregnancies would be detrimental to the repair. Most of these women, while they did not have uterine prolapse, did have freely movable uteri, and vaginal hysterectomy is little, if any, more difficult in these cases than in those with prolapse. The procedure is easier in these instances than in patients with complete prolapse. Furthermore, the time taken to perform vaginal hysterectomy with anterior and posterior repair is little more than is necessary for the repair of the cystocele and rectocele alone. The incidence of chronic cervicitis in these patients was high, and it was often considered an additional indication for hysterectomy.

In cases in which it is known beforehand that a patient will be operated upon both vaginally and abdominally because of symptomatic pelvic relaxation combined with pelvic disease which contraindicates vaginal hysterectomy, we think our best approach is first to perform the indicated vaginal plastic surgery. At the same time, the abdominal procedure is facilitated by releasing the uterosacral and cardinal ligaments intentionally per vaginum. In some instances, however, it cannot be definitely decided beforehand whether or not the uterus can be removed vaginally. In these cases the approach is made vaginally, and if after posterior colpotomy and ligation of the uterosacral and cardinal ligaments and uterine vessels it is not feasible to remove the uterus vaginally, we attach the aforementioned ligaments to the lateral angles of the vagina. We then complete the indicated vaginal plastic procedures, close the vaginal cuff, and the hysterectomy then is easily performed abdominally.

When cervical biopsy is reported as carcinoma in situ, it is our practice to rule out invasive cervical cancer by scalpel conization of the cervix and curettage. If invasive cancer is ruled out and hysterectomy is decided upon, we think that the vaginal route is to be preferred, abdominal hysterectomy being reserved only for those cases in which vaginal hysterectomy is otherwise contraindicated. This preference for the vaginal route is justified, not only because of the other advantages of vaginal over abdominal hysterectomy, but also because we can select a site of amputation of the vaginal cuff with a great deal more accuracy.

The 9 cases of functional uterine bleeding were

mostly in the older age groups, from 35 to 50 years of age. The diagnosis was made only after preliminary curettage revealed no lesions in the endometrium and the bleeding persisted. Most of these patients had associated pelvic relaxation.

There were 13 cases of complete prolapse, and it is noteworthy that the average age of these patients was 66 years. The oldest was 81 and the youngest 41. This age incidence is evidence that complete prolapse is one of the processes of aging.

PROCEDURE

The recent literature is not lacking in papers written on procedures for vaginal hysterectomy. Basically, over the country, all of the techniques represent a modification of either the Heaney[6, 9, 10, 11] or the Mayo[13] procedures. In the Mayo technique all of the ligaments contained in the broad ligament, that is, the uterosacral, cardinal, and round ligaments, are brought together in the midline. The anterior peritoneal cul-de-sac is not entered until the uterus is practically removed. In the Heaney technique, however, the aforementioned ligaments are attached to their respective lateral angles of the vagina in order to give adequate vaginal support. Also, the anterior peritoneal cul-de-sac is entered earlier in the procedure, so that one may proceed without fear of injury to the ureters or bladder.

There has been, apparently, a great swing toward the use of the Heaney technique. The late Dr. Louis Phaneuf[14] changed to a technique similar to that of Heaney because of the relatively large incidence of enterocele following the Mayo type technique. He thought that apposition of the uterosacral ligaments caused a false pouch in the cul-de-sac of Douglas, predisposing to enterocele. He found that after changing to lateral support of the vagina he immediately reduced and practically eliminated the incidence of postoperative enterocele as a late complication. Proof of this swing toward the Heaney type procedure is given by the fact that Counseller,[3, 4] who is chief of the gynecological service at the Mayo Clinic, has himself abandoned the Mayo technique. Gray also uses a technique which employs the principles set forth by Heaney. The procedure we utilize is similar to the Heaney technique in so far as the hysterectomy itself is concerned. It differs widely, however, in the method of anterior and posterior repair.

After a circular incision is made detaching the vaginal mucosa from the cervix, the bladder is advanced and the anterior peritoneal cul-de-sac is entered. This is followed by entry into the posterior peritoneal cul-de-sac. Heaney-Simon retractors are placed in the cul-de-sacs for protection of the bladder, ureters, and rectum. The uterus is removed by the clamp, cut, and ligature method. The first clamp contains the uterosacral and the major part of the cardinal ligaments; the second clamp contains the upper part of the cardinal ligaments and the uterine vessels; and the third clamp (usually the last, and placed in position after delivery of the fundus uteri through the posterior cul-de-sac) contains the round and utero-ovarian ligaments and the tube. The only identifying tags are left on the first and last pedicles on each side. These four tags comprise the maximum number ever used, as it is considered that multiple tags (switchboard style) are more confusing than helpful. Lateral angle sutures are placed in the vagina attaching, religating, and peritonealizing each of the aforementioned ligated ligaments to their respective angles of the vagina.

This is where our technique differs from that of Heaney. In most of the older techniques, including that of Heaney and Mayo, the anterior vaginal wall dissection is done prior to the hysterectomy, but its repair is deferred until after hysterectomy. We believe that this has been one of the causes of excess blood loss, and it is much easier to perform the entire

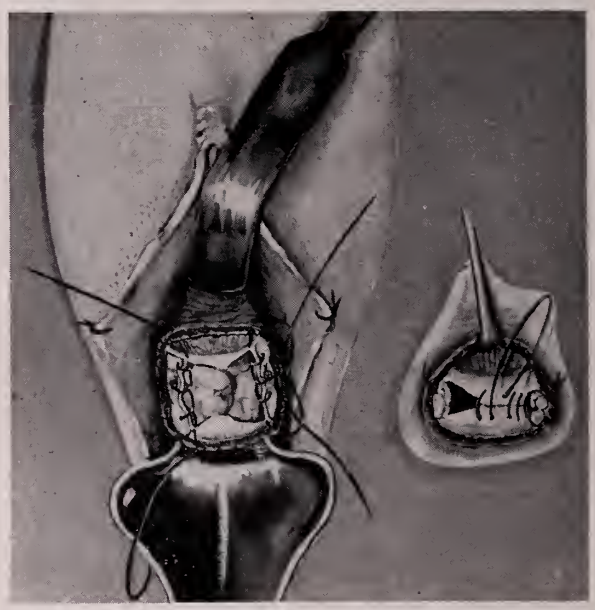

Fig. 1. After hysterectomy by a technique similar to that of Heaney, lateral angle fixation sutures are placed as shown, and the peritoneum is closed.

anterior repair in one stage following the removal of the uterus. A continuous suture is now utilized to close the peritoneum from one lateral angle of the vagina to the other, similar to its closure in abdominal hysterectomy. The anterior vaginal wall is then incised from the anterior cuff to within about 1 cm. of the external urinary meatus. The anterior vaginal wall flaps are then separated from the bladder, and the redundant portion of these vaginal flaps is ex-

cised. The periurethral and perivesical walls are then imbricated in one layer of interrupted sutures, and the intervening dead space between the vaginal wall and bladder is obliterated. The vaginal cuff is now closed with interrupted sutures in a transverse direction.

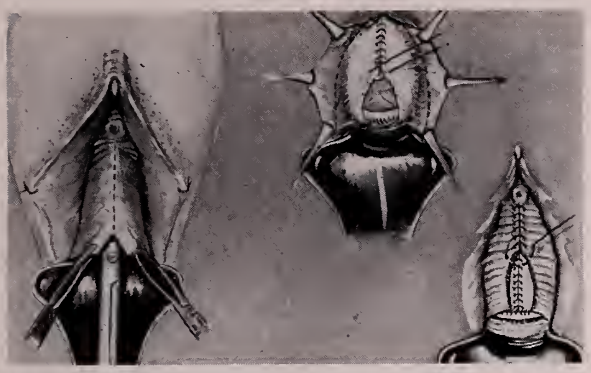

Fig. 2. This drawing shows how vesico-urethral repair is effected all in one stage following the hysterectomy.

The posterior repair varies according to the anatomic necessity and the principle employed here is, first, to enter the rectovaginal space and dissect the posterior vaginal wall from the rectum to the vaginal cuff. A triangular wedge of vaginal mucosa is excised with its apex approximately 2 cm. from the vaginal cuff. A continuous suture imbricating the

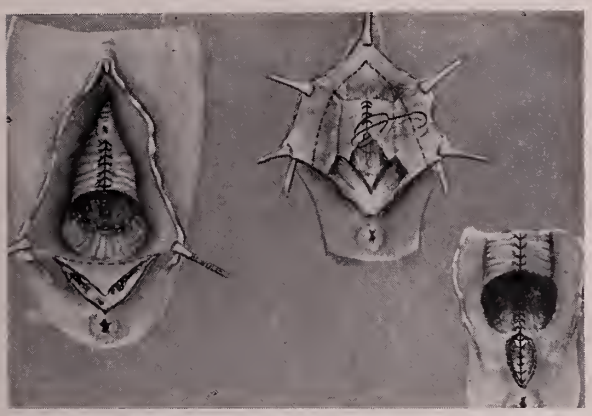

Fig. 3. In repair of a rectocele, support is derived chiefly by the perirectal fascia rather than the levotors.

perirectal fascia is placed near the vaginal cuff and brought downward to the perineum. This suture line actually corrects the rectocele defect and makes unnecessary much of the heavy catgut utilized to create a rigid bridge of levator muscles at the outlet. The vaginal mucosa is then closed, obliterating the dead space between the rectum and vagina. The perineal muscles are closed as in midline episiotomy repair. We find that this form of repair causes less pain postoperatively, and less dyspareunia. The average operating time using this technique is one hour and 53 minutes, but most of the residents in the latter part of their training complete the procedure in slightly more than one hour in uncomplicated cases.

COMPLICATIONS

The standard for morbidity is the same as for obstetrics, that is, elevation of temperature to 100.4 F. on two successive days after the first postoperative day. Forty-nine patients were morbid by this index, and morbidity was unexplained in 8 cases (table 4).

TABLE 4.—*Morbidity and Other Complications in 157 Cases.*

Condition	Incidence
Cuff abscess & infection	19
Cystitis	11
Hemorrhage or hematoma	10
Unexplained	8
Pyelitis	7
Urinary retention	7
Vaginal pack	3
Urinary retention without morbidity	2
Injury to other organs	
Rectum	2
Bladder	2
Upper respiratory infection	1
Intestinal obstruction (ileus)	1

The incidence of vaginal cuff infections and abscesses is a great deal higher than we should like it to be. During the past year this complication has been markedly reduced by the use of preoperative vaginal antibiotic therapy; specifically, we have been using Furacin vaginal suppositories for two nights prior to surgery. This is especially necessary among our clinic patients, who have an unusually high incidence of cervicitis, the organisms of which are quite virulent when not controlled.

Among other complications were 10 cases of hemorrhage and hematoma, which were noted between 3 and 10 days postoperatively and were controlled adequately by vaginal packing or resuturing of the vaginal cuff.

Urinary retention without morbidity existed in 2 patients. These patients were unable to void, but the condition cleared within a period of three to four weeks following surgery, and at the time of their six weeks checkup the patients did not have a significant residual of urine.

There was 1 instance of intestinal obstruction, and this represented a case of adynamic ileus, secondary to pelvic peritonitis. The patient was treated with suction, antibiotics, and adequate drainage of the vaginal cuff.

Injuries to the rectum and bladder in 2 instances each were inadvertent incisions into these organs. They were noted at the time of surgery and repaired,

and the postoperative course of each patient was without incident.

MORTALITY

There were 2 deaths in our series of 157, which shows an incidence of 1.2 per cent:

CASE 1.—Mrs. T. G. was 65 years old, gravida 4, para 4, and had cystocele, rectocele, and a 3 degree prolapse of the uterus. She died on her eleventh postoperative day. A vaginal hysterectomy with anterior and posterior repair was performed by a second year resident, with a senior attending gynecologist as first assistant. The operation was completed without difficulty in one hour and 56 minutes. Blood loss was minimal. On the first postoperative day the patient's temperature was 100.2 F.; pulse was 104; and she complained of perineal pain. The second day the temperature was again 100.2 F., and the patient complained of abdominal and pelvic discomfort. She had been given Gantrisin because of the Foley catheter. Because her pulse rate of 104 was considered to be out of proportion to her temperature, a medical consultation was obtained and the patient was said to have an auricular fibrillation. She continued to have a temperature of between 100 and 100.2 F. for the next few days, although she was ambulatory and otherwise free of complaints. On the ninth postoperative day a rectal examination revealed some tenderness and induration. The patient vomited several times during that day and the next, and had some abdominal pain with pressure which was difficult to evaluate. Urinalysis showed the urine to be loaded with blood cells. A culture of the urine revealed nonhemolytic Staphylococcus, budding yeasts, and Pseudomonas aeruginosa. The blood urea nitrogen was normal. Because she was afebrile, ambulatory, voiding spontaneously, and feeling well, the patient was dismissed on her eleventh postoperative day to return to the clinic one week later. She was brought to the receiving room on the evening of her eleventh postoperative day and was pronounced dead on arrival.

Autopsy was performed and the following findings were given:

1. Recent wound of operation; vaginal hysterectomy for uterine prolapse.
2. Abscess of cul-de-sac with acute diffuse peritonitis and subdiaphragmatic abscesses.
3. Pneumonia, focal, bilateral, early (aspiration).
4. Hydrothorax, right (100 cc.).
5. Arteriosclerosis, generalized, moderate.
6. Nephrosclerosis, arterial and arteriolar.
7. Cystitis, acute.
8. Nodular colloid hyperplasia of thyroid.

It is thought that this patient had had an unrecognized crisis of hyperthyroidism, which probably lowered her resistance to the abscesses in the cul-de-sac which had developed with diffuse, overwhelming peritonitis and pneumonia. It is to be noted that the patient had told all present that she was going to die before she was operated upon.

CASE 2.—Mrs. F. C. was 81 years old, gravida 9, para 9, and had had a complete procidentia for one year. Vaginal hysterectomy with anterior and posterior repair and vaginectomy were performed after consultation with the medical service staff. The patient had arteriosclerotic heart disease, compensated. When the results of a chest roentgenogram electrocardiogram, and blood urea nitrogen test were within normal limits, she was cleared by the Department of Medicine for surgery.

The operation was stated to be without difficulty, and the patient's immediate postoperative course was good. She was ambulatory on her second postoperative day. The Foley catheter was removed on her fifth day postoperatively, and she voided easily. She would take little food, and her limited fluid intake necessitated the use of intravenous fluids. Her temperature rose to 103 F. on her ninth postoperative day, and urine culture and sensitivity tests revealed diphtheroids, Klebsiella, and Aerobacter aerogenes. She was given Achromycin and was tube fed because of her refusal to take food. She gradually became weaker and unresponsive. Medical consultation opined that the patient's condition represented borderline renal failure, precipitated by her recent infection. Her blood urea nitrogen had risen to 108 mg. per 100 cc., and by the twelfth postoperative day it was up to 121. She became comatose and died on her seventeenth postoperative day. Autopsy was refused.

It is thought that even though medical consultation had cleared this patient for surgery, a far more extensive procedure was performed than was necessary for a woman of advanced age. The operation predisposed her to urinary infection and tipped the scales of renal failure, causing her demise.

SUMMARY AND CONCLUSIONS

A series of 157 cases of vaginal hysterectomy performed by resident physicians at a charity hospital is presented. The complications and age incidence peculiar to an indigent clinic population are noted. A simplified technique for vaginal hysterectomy is described.

Vaginal hysterectomy utilizing the simplified technique presented, or one similar to it, together with the good results obtained, are thought to be the principle reasons for the increasing popularity of this operation.

Where defects of the bladder or rectum are present, an attempt to remove the uterus vaginally should be made if hysterectomy is indicated. It is believed that vaginal hysterectomy is the procedure of choice, rather than that the patient be subjected to the hazards of pelvic repair with laparotomy.

The number of patients successfully treated by vaginal hysterectomy after previous pelvic surgery totalled 69. In none of these was it necessary to perform laparotomy, and in no case did we regret the decision to remove the uterus vaginally. Each case is judged on its own merits according to the exact history and findings on examination.

Vaginal hysterectomy by morcellation is indicated when the uterine mass is freely movable and the risk of abdominal surgery great, as in extreme obesity, or in the presence of debilitating diseases which prevent the use of major anesthesia. It is not performed as a routine or as a matter of gymnastic achievement.

In the 5 cases presented, it was our experience that each achieved the desired result of maximum benefit with minimum risk. The technique to be emphasized where vaginal hysterectomy is done by morcellation is that the morcellation is not begun unless and until the uterine vessels on each side are well ligated.

The simplicity of vaginal hysterectomy facilitates abandonment of the procedure at any time and completion by the abdominal route. Just as one does not proceed to damage the infant prior to resorting to cesarean section, the decision to abandon the vaginal approach should be made soon after posterior colpotomy has allowed adequate cul-de-sac and adnexal examination.

Our results with an indigent population, operated upon entirely by resident staff, warrant our continued use of this procedure.

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VA Begins New TB Drug Study

A new antibiotic drug, streptovaricin, is being tested against tuberculosis by the Veterans Administration. Receiving the drug combination are 100 patients in 10 hospitals who still have lung cavities from tuberculosis after treatment with other drugs. They will be treated for eight months with a combination of streptovaricin and isoniazid to determine (1) the effectiveness of the combination and (2) whether streptovaricin can slow down development of resistance to isoniazid by tuberculosis germs.

The new antibiotic was isolated first from a fungus found in a soil sample collected in Dallas.

CASE REPORTS

Primary Ovarian Pregnancy

Report of a Case

WILLIAM T. WOMACK, M. D., and WILLIAM H. McCAW, M. D.

San Angelo, Texas

ALTHOUGH ovarian pregnancy was first described in the seventeenth century, it was not until after 1900 that English authorities recognized the diagnosis. The rarity of ovarian pregnancy warrants the report of individual cases. The incidence is reported as varying from 1 in 25,000 to 1 in 40,000 pregnancies, as estimated by Young and Hawk.[8] Hertig[3] has calculated that 0.7 to 1.0 per cent of all ectopic pregnancies are ovarian.

Dr. William T. Womack, associate member of the staff of Shannon West Texas Memorial Hospital, is now in the Air Force at Albuquerque, N. Mex. His co-author is on the consulting staff, Division of Obstetrics and Gynecology, Shannon Hospital.

True ovarian pregnancy is rare. Its clinical course is similar to that of tubal ectopic pregnancy. The case reported here occurred in a 28 year old Latin American, gravida 5, para 4, who was treated successfully and returned to the hospital a year later for spontaneous delivery with a term intrauterine pregnancy.

Until the establishment by Spiegelberg in 1887 of his criteria for the diagnosis, many false reports of ovarian pregnancy were made. It took the four following requirements, now known as Spiegelberg's criteria, finally to set a definite limitation on the diagnosis of this condition:

1. The tube on the affected side must be intact,

including the fimbriated end, and free from the ovary.

2. The gestational sac definitely must occupy the normal position of the ovary.

3. The gestational sac must be connected to the uterus by the utero-ovarian ligament.

4. Unquestionable ovarian tissue must be demonstrated in the walls of the sac.

With the establishment of the criteria, many of the cases of tubal pregnancy aborted onto the ovary have been discarded as ovarian pregnancies.

In 1932 Wollner[7] culled 48 cases from the literature. Four years later Russell and Black[4] added 4 more. Seven more cases were reported by Wilson and Robins[6] for a total of 59. Twenty-five additional cases were added by Golden[2] from his review of the literature for a total of 84 cases. "Authentic cases" have varied from this figure to 200.[1] Thirty-eight cases were carried to viability—28 weeks or more—and resulted in 12 living babies. Many cases are undoubtedly that of the extrafollicular or secondary type and not the true primary ovarian pregnancy as defined by Spiegelberg's criteria.

The cause of this rare condition has been theorized by Wollner[7] as being an increased resistance of the surrounding tissue preventing the explosion of the ovum from the cumulus oophorus. His explanation for this increased resistance includes the presence of oophoritis. Some authorities believe that endometriosis plays an important role in the etiology. In none of the cases reviewed was there a history of pelvic inflammatory disease.[8]

The clinical course is similar to that seen in tubal ectopic pregnancy. In 80 per cent of the cases reviewed there was a normal menstrual history. The age incidence varied from 19 to 44 years. In approximately 45 per cent the onset of symptoms occurred less than 28 days after the last menstrual period. Parity ranged from 1 to 8, and it is interesting to note that the greatest number of patients were primiparous.

The usual signs and symptoms are those incidental to bleeding into the peritoneal cavity, with its associated abdominal pain, rigidity, eventual flank dullness, and shock. There is the sometimes associated symptom of shoulder pain due to diaphragmatic irritation. There is, on pelvic examination, usually a tender mass in the cul-de-sac. Vaginal bleeding may or may not be present.

CASE REPORT

Mrs. E. S., a 28 year old Latin-American divorcee, gravida 5, para 4, was seen first in the emergency room of the Shannon West Texas Memorial Hospital at 6:30 p. m., October 11, 1955. She was brought in by friends who stated, "She has appendicitis." The patient had been asymptomatic until noon of that day when she complained of being "sick at her stomach"; at approximately 4 p. m. she had vomited one time. Immediately prior to being brought to the hospital she had complained of severe pain in her right side and abdomen. On the way to the hospital she had become "sleepy" and had to be carried into the emergency room.

The informant knew nothing about the patient's past history or family history. The personal history showed she worked as a waitress in a local cafe. She was a Mexican citizen who had only recently come to work in San Angelo.

The following menstrual history was obtained from the patient: onset of bleeding six days before, flow about ceased at present. Last menstrual period September 10 with a normal flow.

Physical examination showed the temperature to be normal, pulse 110 and weak, respirations 22 per minute, and blood pressure 60/?. Blood pressure was unobtainable except by palpation over the brachial artery. In general she appeared to be a Latin-American female of approximately the stated age of 28 years. She was prostrate, groggy, and sleepy. Upon direct questioning she would partially open her eyes and answer with one or two mumbled words. The mucous membranes and nail beds were very pale. The patient appeared grossly washed out. The abdomen was of normal contour with no abdominal scars noted; there were present old striae gravidarum. Palpation showed the abdomen to be soft with no muscle rigidity. Voluntary guarding with pain to palpation was noted in both lower quadrants, marked on the right. Rebound tenderness was questionable. Genitalia were normal.

The pelvic introitus was parous. No blood was seen in the vagina. The cervix was slightly bluish but with no erosion. On bimanual examination the uterus was felt to be only slightly enlarged. There was an ill defined mass in the right adnexal region. The patient complained of pain on palpation of the right adnexa. Rectal examination was deferred.

The back and extremities were normal.

Treatment for shock was instituted, including whole blood transfusion. Colpocentesis was performed and revealed the presence of dark blood in the cul-de-sac. The blood did not clot. A complete blood count showed 9.9 Gm. of hemoglobin per 100 cc. (63 per cent), 26,250 white blood cells per cubic centimeter, 24 per cent stabs, 59 per cent segmented cells, and 17 per cent lymphocytes. An emergency laparotomy was scheduled with the preoperative diagnosis as follows: (1) hematoperitoneum, acute with secondary shock; (2) etiology—ectopic pregnancy, ruptured or ovarian cyst, ruptured.

At operation there was found 700 to 1,000 cc. of dark, unclotted blood in the peritoneal cavity. Both fallopian tubes were normal, including the fimbriated ends, but a small dark cystic structure measuring 4 cm. in diameter occupied the right ovary. It was ruptured and bleeding actively. A wedge of the right ovary, including the cystic structure, was excised and hemostasis secured. Next a majority of the free blood in the peritoneum was removed, and a small denuded area on the posterior aspect of the right broad ligament was noted. The area was packed with Gelfoam and peritonealized. At this stage the diagnosis was thought to be ruptured corpus luteum cyst with hemorrhage. The patient received one unit of blood on the table and was returned to her room with a blood pressure of 100/80.

She was started on Gantrisin prophylactically because of intraperitoneal hemorrhage with the risk of secondary infection. Ambulation was started on the first day, and no complications were noted. The patient was discharged the fifth postoperative day, and the skin sutures were removed the seventh day. The postoperative course was smooth.

The patient did not return for postoperative follow-ups. She was readmitted to the hospital September 22, 1956, with a term intrauterine pregnancy. She was admitted in active labor. She delivered by spontaneous mechanism, and an elective tubal ligation was done. The right ovary appeared normal with the exception that it was slightly smaller than the left.

Pathologic Report.—Grossly, the specimen from the October, 1955, operation was made up of five pieces of tissues that showed considerable hemorrhage. The combined weight of the entire material was 12 Gm. The pieces averaged from 3 cm. down to 1.5 cm. in diameter. The largest piece showed some gray, slightly shiny material, that was consistent with ovarian capsule. All of the remainder of the material was hemorrhagic in appearance and could not be identified as any particular organ.

Sections examined microscopically showed both ovarian tissue and placental tissue in juxtaposition. The placental tissue was made up of both chorionic villi and decidual cells. Most of the placental tissue was present in the blood clot, but it was also found adherent to ovarian stroma. The ovarian tissue that was nearest the placenta showed a decidual reaction and extensive hemorrhage and inflammation. This reaction of hemorrhage and inflammation destroyed the normal relations of the ovarian stroma, except for resistant bodies such as corpus albicans (fig. 1). The ovarian tissue further removed from the placental implant showed uniform and orderly stromal cells, one atrophic corpus luteum, and a few follicular cysts.

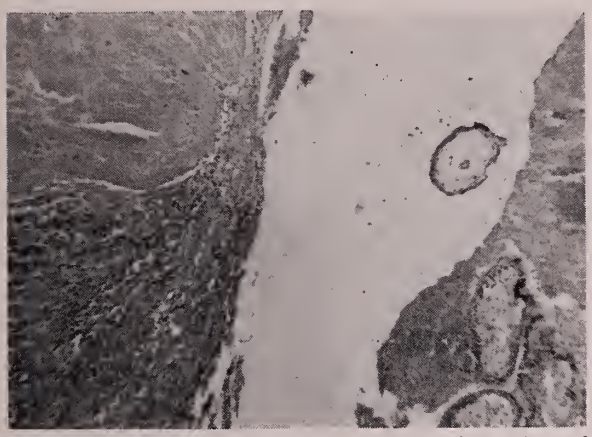

Fig. 1. A photomicrograph showing the relationship of the placental tissue to the ovary. Note the preserved corpus albicans in the upper left, the inflamed ovarian stroma lower left, and the chorionic villi lower right. (Hematoxylin and eosin stain, X 75.)

The diagnosis was of an ovary showing implanted placental tissue.

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MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-23, 1958. Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, New York, June 3-7, 1957. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

MAY

American Association for Thoracic Surgery, Chicago, May 4-7, 1957. Dr. Cameron Haight, Ann Arbor, Mich., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Hot Springs, Va., May 1-3, 1957. Dr. Archie L. Dean, New York, Pres.; Dr. John A. Taylor, 2 E. 54th St., New York 22, Secy.

American College of Chest Physicians, New York, May 29-June 2, 1957. Dr. Herman J. Moersch, Rochester, Minn., Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American Gastro-Enterological Association, Colorado Springs, May 17-18, 1957. Dr. Sam A. Wilkinson, Jr., Boston, Pres.; Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secy.

American Gynecological Society, Hot Springs, Va., May 27-29, 1957. Dr. Norman F. Miller, Ann Arbor, Mich., Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Ophthalmological Society, Hot Springs, Va., May 30-June 1, 1957. Dr. Frederick C. Cordes, San Francisco, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Psychiatric Association, Chicago, May 13-17, 1957. Dr. Francis J. Braceland, Hartford 2, Conn., Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Surgical Association, Chicago, May 8-10, 1957. Dr. Loyal Davis, Chicago, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association, Pittsburgh, May 6-9, 1957. Dr. George C. Prather, Brookline, Mass., Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

National Tuberculosis Association, Kansas City, May 5-10, 1957. Dr. Howard W. Bosworth, Los Angeles, Pres.; Mrs. Morrell DeReiga, 1790 Broadway, New York 19, Secy.

Southwest Allergy Forum, Fort Worth, May 5-7, 1957. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.

Southwestern Society of Nuclear Medicine, Houston, May 4-5, 1957. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Texas Hospital Association, Houston, May 14-16, 1957. Mr. H. M. Cardwell, Lufkin, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

JUNE

American Neurological Association, Atlantic City, June 17-19, 1957. Dr. H. Houston Merritt, New York 32, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Carmel, Calif., June 17-19, 1957. Dr. Daniel C. Darrow, Mission, Kan., Pres.; Dr. A. C. McGuinness, 1427 I St., N.W., Washington 5, D. C., Secy.

Texas State Board of Medical Examiners, Fort Worth, June 24-26, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. W. B. Sherman, New York, Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of General Practice. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Grosse Point 30, Mich., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Merle Moore, Portland, Ore., Pres.; Dr. David Thomas, 1467 Harper St., Augusta, Ga., Secy.

American College of Gastroenterology, Boston, Oct. 20-23, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Physicians. Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5-8, 1958. Dr. Ira H. Lockwood, Kansas City, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Congress on Maternal Care, Chicago, July 8-12, 1957. Dr. F. Bayard Carter and Dr. Samuel B. Kirkwood, 116 S. Michigan Ave., Chicago 3, Co-Chm.

American Dermatological Association. Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.

American Heart Association, Chicago, Oct. 25-29, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Proctologic Society. Dr. Karl Zimmerman, 3500 Fifth Ave., Pittsburgh 13, Secy.

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

Association of American Physicians and Surgeons, Delegates and Assembly. Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 20-21, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.

Southwestern Medical Association, El Paso, Oct. 9-11, 1957. Dr. Celso Stapp, El Paso, Pres.; Dr. Russell L. Deter, 1501 Arizona St., El Paso, Secy.

Southwestern Surgical Congress. Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Assembly, Shreveport, Sept. 12-13, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Brady, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, Houston, April, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society. Dr. Thomas L. Shields, Fort Worth, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association. Dr. H. T. Engelhardt, Houston, Pres.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Geriatrics Society, Houston, April, 1958. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Industrial Medical Association. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neuropsychiatric Association, Dallas, Oct. 18-19, 1957 (with Central Neuropsychiatric Association). Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.

Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. J. R. Riley, Corpus Christi, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society for Mental Health. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.
Texas Society of Anesthesiologists. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.
Texas Society of Gastroenterologists and Proctologists. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.
Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.
Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.
Texas Society of Plastic Surgeons. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.
Texas Surgical Society. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.
Texas Traumatic Surgical Society. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.
Texas Tuberculosis Association. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, 2406 Manor Road, Austin, Executive Director.
Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.
United States-Mexico Border Public Health Association. Dr. Guillermo Soberanes, Hermosillo, Sonora, Mexico, Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.
Second District Society. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rhumbo, Box D, O'Donnell, Secy.
Third District Society, Amarillo, Spring, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.
Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.
Fifth and Sixth Districts Society, Corpus Christi, July 5-6, 1957. Dr. James C. Sharp, Corpus Christi, Pres.; Dr. Winston E. Riley, 2400 Morgan, Corpus Christi, Secy.
Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.
Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.
Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.
Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.
Eleventh District Society. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.
Twelfth District Society, July 9, 1957. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.
Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.
Fifteenth District Society. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. John D. Gleckler, 211 N. Fannin, Denison, Chm.
Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.
International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.
New Orleans Graduate Medical Assembly. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 626 Maison Blanche Bldg., New Orleans 16, Secy.
North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebh, 1518 10th, Wichita Falls, Chm.
Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.
Postgraduate Medical Assembly of South Texas, Houston, July 15-17, 1957. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.
State Tumor Conference, Wichita Falls. Dr. Edwin C. Bebh, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

MEDICAL MEETINGS

World Medical Association Sets Conventions, Record Repository

Members of the United States Committee of the World Medical Association will hold their second annual meeting at 3 p. m. Tuesday, June 4, at the Waldorf Astoria Hotel in New York — during the American Medical Association convention scheduled for June 1-6. The traditional Pepsi-Cola Company reception for members will follow that meeting, and open house for members will be held in the WMA office in the Coliseum Towers during the entire AMA convention.

The tenth general assembly of WMA approved establishment of a Central Repository for Medical Records, which will be started in the near future. Because of the tragic losses of educational records and official credentials of physicians resulting from wars and natural disasters in the past, other international organizations have pledged their support and cooperation to WMA in developing the plan.

A privilege of membership in the U. S. Committee of WMA is the opportunity to attend its general assembly in Istanbul, Turkey, September 29-October 5 as an official observer. Further information is available from Dr. Louis H. Bauer, Secretary-Treasurer, World Medical Association, 10 Columbus Circle, New York 19.

School Health Meeting Draws 125

Several Texas doctors participated in a meeting on health education sponsored in Uvalde March 18 by the Southwest Schoolman's Association. The session, attended by members of the medical, dental, nursing, and teaching professions, attracted some 125 persons.

Dr. B. Oliver Lewis, director of the Southwest Texas Health Unit, discussed the importance of school health programs and introduced a panel of specialists.

Others participating were Dr. J. J. Johns, Taylor; Dr. C. F. Moore, Jr., director of maternal and child health at the State Department of Health, Austin; Dr. and Mrs. George M. Allison, Uvalde; and Mrs. Dean Little, Texas Medical Association staff member from Austin.

Tuberculosis Association Convenes

The Texas Tuberculosis Association held its annual meeting April 4-6 in Fort Worth, with the Fort Worth-Tarrant County Tuberculosis Society as host group.

Dr. Katherine H. K. Hsu, pediatrician at the Houston Children's Tuberculosis Clinic and member of the staff of Baylor University College of Medicine, was awarded the association's $3,000 research grant for the coming year, and announcement was made of the Dallas Tuberculosis Association's approval of a $7,079 grant to the University of Texas Southwestern Medical School for the purchase of viscosimeter and the continuation of the work on "Chemical Stimulation of Local and Systemic Eosinophilia and Chromogenic Mycobacterial Infections in Children" by Dr. John S. Chapman and L. Ruth Guy, Ph.D.

Dr. Hsu, a native of Peking, China, is doing medical detective work in that every child brought into the Houston clinic is considered a direct clue to at least one other tuberculous person. Dr. Hsu follows up on contacts of the child —family and friends—not only at the time the child is ad-

mitted to the clinic, but, subsequently, to watch for later-developing cases. She follows this up with a program of family education. The percentage of cases of tuberculosis found by the method Dr. Hsu is using is considerably higher than the percentage found in general roentgenographic surveys.

Officers elected at the annual meeting included Dr. Howard T. Barkley, Houston, president; Dr. John W. Middleton, Galveston, president-elect; Dr. John A. Wiggins, Fort Worth, first vice-president; Mrs. A. B. Rivers, second vice-president; Mrs. C. A. Jowell, Abilene, secretary; Dr. Z. T. Scott, Austin, treasurer; and Dr. Robert B. Morrison, Austin, assistant treasurer. Dr. Robert J. Hanks, Waco, is a member of the executive committee.

The program included the following:

The Tuberculin Test as an Approach to the New Era—Dr. Katharine H. K. Hsu, Houston.
Important Problems That Confront Us in Tuberculosis Control—Dr. J. Arthur Myers, Minneapolis.
The Role of the Health Department in Tuberculosis Control in Texas—Dr. Howard E. Smith, Austin.
Panel: Pulmonary Emphysema—Dr. William F. Miller, Dallas, moderator; Dr. James K. Alexander, Houston, and Dr. Hollis S. Boren, Houston.
Clinical Application of Intermittent Positive Pressure Breathing in the Treatment of Pulmonary Diseases—Dr. Ivan E. Cushing, Dallas.
Modifications of Conventional Spirometers Used for Ventilatory Measurements—Dr. Hollis S. Boren, Houston.
X-Ray Clinic—Dr. J. E. Miller, Dallas.
The Emotional Aspects of Tuberculosis—Dr. James K. Peden, Dallas.
Methods of Family Education in a Tuberculosis Control Program—Miss Lena Pecover, R. N., Houston.
An Impartial View of Tuberculosis Control in Texas—Dr. Julius Lane Wilson, New York.
Evaluation of Total Therapy and Relapse in Advanced Pulmonary Tuberculosis—Dr. P. O. Jones, Houston.
Pneumonitis Due to Chromogenic Acid Fast Bacilli—Mycobacteriosis—Dr. Irving Chofnas, Houston.
Diagnosis and Antimicrobial Therapy of Primary Tuberculosis—Dr. Katharine H. K. Hsu, Houston.
Importance of Specific Findings in Diagnosis of Diseases of the Chest—Dr. J. Arthur Myers, Minneapolis.
New Techniques Employing Hela Cell Cultures in Cultivation of Tubercle Bacilli—Dr. Charles C. Shepard, Montgomery.
Survival Rates Following Resection from Bronchogenic Carcinoma—Dr. Donald L. Paulson, Dallas.
Hiatus Hernia: An Abdominal Approach to a Problem of the Chest—Dr. E. Stanley Crawford, Houston.
Report from the Veterans Administration Army-Navy Conference on Chemotherapy of Tuberculosis—Dr. John W. Middleton, Galveston.

EDUCATION

POSTGRADUATE COURSES

The Ivan H. Mattson, I. Memorial Tuberculosis Seminar, Dallas, May 20-21. Sponsored by the University of Texas Southwestern Medical School in association with the Dallas Tuberculosis Association, this course will be given at the medical school. Fourteen hours of formal credit will be given to members of the Academy of General Practice who attend. Speakers will include Texas Drs. Elliott Mendenhall, H. Frank Carman, Lynn Christianson, D. O. Shields, John W. Stack, J. O. Armstrong, William B. Tucker, Harold Freed, Henry M. Winans, Sr., Donald L. Paulson, Robert S. Meador, John S. Chapman, John G. Young, Jack E. Lanier, Eldon K. Siebel, J. O. S. Holt, Jr., J. E. Miller, and Robert R. Shaw, and Dr. William B. Tucker, director of tuberculosis service, Veterans Administration Central Office, Washington, D. C. Registration fee is $5. Further details are available from the Executive Director, Dallas Tuberculosis Association, 3925 Maple Avenue, Dallas 19.

Sixth Annual Symposium for General Practitioners on Tuberculosis and Other Chronic Pulmonary Diseases, Saranac Lake, N. Y., July 8-12. Approved for 26 hours of formal credit to members of the American Academy of General Practice, this five day course will be held in the various sanatoriums, hospitals, and laboratories in the Saranac Lake area. Free bus transportation will be provided to various meeting places for doctors, so accompanying vacationing families will have use of family cars. Registration fee is $40. Further information and copies of the program may be obtained from Dr. Henry W. Leetch, general chairman, Symposium for General Practitioners, P. O. Box 11, Saranac Lake, N. Y.

University of Texas Medical Branch

Several gifts have been received recently by the University of Texas Medical Branch, Galveston. Among these are $64,000 from the National Fund for Medical Education and the American Medical Education Foundation and $50,000 from the Babe Zaharias Foundation for purchase of a cobalt therapy machine. The latter will be housed in a special building to be donated by the Sealy-Smith Foundation at a cost of approximately $150,000.

Recent guests at the Galveston college include Dr. Andrew Ranier, pathologist at St. Patrick's Hospital, Lake Charles, La.; Dr. Roger Reid, head of the microbiology division, Office of Naval Research, Department of Navy; Dr. George Gey, Johns Hopkins University; Dr. Alfred Sabin, Children's Research Foundation, Cincinnati; Dr. Joseph Beard, Duke University; Dr. Ernest Goodpasture, Armed Forces Institute of Pathology, Washington, D. C.; and Dr. Lewis G. Herrmann, Department of Surgery, Cincinnati General Hospital.

Southwestern Medical Foundation To Benefit from Estates

Southwestern Medical Foundation was recently named beneficiary of two estates in Dallas. The Fred and Louise McClurkin bequest, valued in excess of $100,000 in stocks and cash from the estate of Louise McClurkin, will be used in Dallas for the prevention and cure of poliomyelitis and diseases of the heart. Under the terms of the will of Mrs. Edith Eulalie Sewell Lee, her estate of $250,000 will go to the foundation after the death of the last of four relatives, who will receive the income from the estate during their lifetimes.

Medical Assistants Course Offered

San Antonio College has agreed to offer a two year course for medical assistants provided that the medical profession will back the plan and encourage sufficient enrollment to make the program worth while. The executive board of Bexar County Medical Society has endorsed the course of study. The program was worked out with cooperation of the Texas Commission on Patient Care and the Texas Medical Association and will serve as a pilot project which can be adapted for use elsewhere in the state if it works out satisfactorily.

The development in San Antonio occurred simultaneously with release by the American Medical Association of the results of a study conducted last year to determine the ideal knowledges, skills, and personal qualities of medical secretaries. A mail questionnaire with answers supplied by approximately 500 topnotch medical secretaries and personal interviews with physicians and business educators formed

the basis of the study by Harold Mickelson, Northeast Missouri State Teachers College, in cooperation with the AMA.

Physicians are not making maximum use of their extensive training when they unnecessarily perform semitechnical medical and business activities that can be properly delegated to competent office personnel, Mr. Michelson concluded. The consensus was that it is penny wise and pound foolish to employ incompetent aides.

On the basis of the survey it has been suggested that medical associations and medical assistants groups can help provide a greater force of better trained aides by (1) encouraging schools to offer medical secretarial training, (2) organizing refresher courses in medical office administration for the employed medical assistant, (4) persuading currently employed medical secretaries to increase their effectiveness through additional training, and (5) pointing out to physicians the importance of employing well qualified medical assistants and remunerating them adequately.

Institute of Religion: First Birthday

The Institute of Religion, headquartered in the Texas Medical Center at Houston, observed its first anniversary early in May.

A pioneering adventure in the field of health, the Institute seeks to develop a teamwork approach to the problems in this field through cooperation of all those who minister to the patient, thereby fulfilling the aim of the Texas Medical Center: to serve the needs of the whole person.

Two events marked the anniversary. The first was the annual meeting and dinner of the board of trustees, at which plans were projected for enlargement of the services of the Institute, and the second was a May 9 convocation in the Jesse H. Jones Library Building.

At the latter event, recognition was given to ministerial students who had completed a clinical year of training in the Institute as well as an internship in Methodist, Hermann, or Memorial Hospital; to medical students who had attended classes in "Religion and Medicine" at Baylor University College of Medicine; and to nurses and nursing students who attended classes in "Religion and Health" in the nursing schools.

Dawson C. Bryan, D. D., is director of the Institute of Religion, which was set up after study by the Council of Administrators of the Texas Medical Center and the Council of Churches of Greater Houston. It is a laboratory extension program in academic learning and practical clinical experience for five theological seminaries of Texas: Austin Presbyterian Theological Seminary, Austin; Brite College of the Bible, Texas Christian University, Fort Worth; Episcopal Theological Seminary of the Southwest, Austin; Perkins School of Theology, Southern Methodist University, Dallas; and Southwestern Baptist Theological Seminary, Fort Worth.

The Institute conducts the following training programs:

1. A one-year residency course in pastoral care, with clinical training for ministers beyond the bachelor of divinity degree. Credit is earned on master's and doctor's degrees. Ministers are trained for hospital chaplaincy, to teach in theological schools, and for better pastoral ministry.
2. A three-month course in clinical pastoral care of the sick and afflicted in hospital situations for pastors and students from theological schools.
3. Workshops in pastoral care to help community pastors become more effective in ministering to their parishioners, and to learn to work cooperatively with doctors on the healing team.
4. An elective course for medical students of Baylor University College of Medicine in religion and health, and to familiarize them with the role of the pastor on the healing team. (This is probably the first religion-medicine course taught at any medical school in America.)
5. Classes for nursing students concerning the place of religion and the minister in service to the sick.
6. Seminars, workshops, and training courses elsewhere in Texas to help ministers, doctors, and nurses work together.

Research projects will be established in many areas, such as, "the minister's help to crippled and handicapped children and their families," "religious resources in the care of the aged," and "the minister and doctor in a teamwork approach to the mentally ill."

OF GENERAL INTEREST

Muscular Dystrophy Studies Grow

The National Muscular Dystrophy Research Foundation, headquartered in Liberty, has made grants for (1) a second-year renewal of the project of Dr. Harold L. Dobson, assistant professor of medicine, Baylor University College of Medicine, Houston; (2) the first year's work by Walter B. Geiger, Ph.D., a senior research associate of the Southwest Foundation for Research and Education, San Antonio, on his study, "Enzymological Transformations of Creatine in Muscle"; and (3) the project of Roy B. Mefferd, Jr., Ph.D., "Excretion Patterns of Families with Muscular Dystrophic or Spinal Muscular Atrophic Members" at the University of Texas Biochemical Institute in Austin, made possible from a donation by the Musculat Dystrophy chapter of San Antonio.

Earlier this year, the South's first Muscular Dystrophy Clinic went into action at the University of Texas Medical Branch in Galveston as part of a quarter million dollar research project sponsored jointly by the school and the National Muscular Dystrophy Research Foundation, Inc.

Two youngsters, aged 9 and 18, muscular dystrophy victims, were the first patients accepted for study in the program. They were studied first in pediatric and medical clinics to detect any complicating diseases, then entered the Medical Branch Clinic.

While the Medical Branch will take only two muscular dystrophy patients a week for intensive study at first, more will be admitted later. Letters sent to patients, requesting participation in the program, have emphasized that the invitation does not mean that the Medical Branch has a cure, nor even an exciting lead. Research workers are first trying to detect its cause or causes.

Names of victims are being obtained from the dystrophy research foundation, which has comprehensive files with basic information on thousands throughout the world who have the disease. These files have already proved valuable in that information from patients can be correlated, but more is still needed. Making a special trip to Liberty to select patients' names and data for the study project were Dr. M. Mason Guest, chairman of the inter-departmental advisory committee, and Dr. Arnold H. Nevis, muscular dystrophy research coordinator.

A new approach in this study is the coordination of nine departments of the Medical Branch through the advisory committee, and it is believed that this integrated approach will break down barriers to facts which may possibly indicate a cure.

The ever greater use to which files of the Liberty foundation are being put has prompted the Woods sisters, its founders, to issue once more a public plea for registration of victims with them.

Umpires Praise Operation Rebound

Official umpire reports supplied by a team of medical officers from Brooke Army Hospital and comments from the more than 180 invited guests indicate that except for minor deficiencies, such as break-down of communications from interference by amateur radio operators over the country, Operation Rebound was an extremely valuable exercise. This was the field trial to investigate the practicability of the 200-bed Federal Civil Defense Administration hospital unit, now stockpiled in strategic areas over the country, sponsored March 29 by the Brazoria and Galveston County Medical Societies together with their respective county civil defense organizations and the MEND (Medical Education for National Defense) programs of Baylor University College of Medicine and the University of Texas Medical Branch.

The project was intended to test the ability of communities in the Gulf Coast region south of Houston to provide medical support in the event of a disaster which would cripple hospital and medical facilities in the urban area itself.

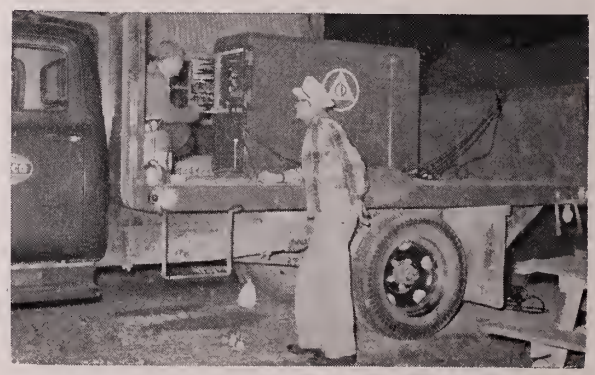
One hospital unit, assigned by the Federal Civil Defense Administration to the University of Texas Medical Branch, was set up at Arcadia in tents and a quonset hut with an advanced aid station on Highway 6 at Arcola. The other unit, assigned to Baylor, was quartered in West Columbia in the Consolidated Elementary School built in 1952 and winner of national and international prizes for its architect. The Arcadia unit was manned by doctors, nurses, and lay personnel from Galveston County under the leadership of Dr. Clarence Quinn of Texas City, and the West Columbia unit was staffed from Brazoria County (including 22 of the 30 doctors in the county), with a few volunteers from the Medical Branch in Galveston, under the direction of Dr. W. D. Nicholson of Freeport. A total of 2,000 persons, including 800 medical students, participated in the exercise, which began at 4 p. m. and continued until about 3 a. m. on March 30.

Dr. Clarence Quinn, commander of Galveston County unit; Dr. E. F. Jones, president of Galveston County Medical Society; Miss Billye Brown, chief of nursing for exercise; and Dr. John B. Truslow, executive director, University of Texas Medical Branch (left to right) in front of van constructed to transport hospital equipment.

Considerable realism was added to the exercise by the use of ambulances with screaming sirens and students as simulated casualties, who had been briefed on portrayal of their injuries and had professional make-up applied according to methods imported from Great Britain by General William Shambora, commanding officer of Brooke Army

Dr. W. C. Levin, University of Texas Medical Branch, director of blood bank, Alvin; Dr. Frank Berry, Assistant Secretary of Defense; Dr. T. G. Blocker, Jr., commander of Operation Rebound; Dr. Harold C. Lueth, member, Council on National Defense, American Medical Association; Dr. Stanley Olson, dean, Baylor University College of Medicine; and Frank Barton, secretary, Council on National Defense, American Medical Association (left to right).

Unloading of cots and supply boxes for Arcadia unit by team of medical students.



Federal Civil Defense Emergency Hospital Unit generator (15 KW) which furnished power for operation of Arcadia unit hospital quartered in quonset hut and three tents.

Hospital. Students were also given 20 cc. vials of out-dated blood from the blood bank to pour on themselves at the last minute before being admitted to advanced aid stations as patients.

It was evident that if the exercise could have been run through once or twice ahead of time the aim to "do the greatest good for the greatest number" would have been accomplished by all concerned, officials of Operation Rebound report. Many physicians were not familiar with either the term or the technique of triage so that burn patients and others were not always sorted according to priority for treatment. Also, the need for further training of both medical students and practitioners in first aid was amply demonstrated, particularly with regard to application of splints and handling of litter patients. One medical student almost became a real casualty when the stretcher on which he was lying, supposedly in shock from burns and a severe back injury, was dumped on the ground underneath the exhaust pipe of an ambulance left with the engine running. When asked why he didn't call out, he answered seriously, "I couldn't; I was supposed to be unconscious."

Advanced aid station, Algoa. Dr. S. R. Snodgrass, University of Texas Medical Branch professor of neurosurgery, in charge of shift in triage and first aid.

Busy activity on ward, University of Texas Medical Branch, Arcadia unit. Note chaplain in right background.

Continuous canteen service provided by the Red Cross.

Miss Billye Brown, associate professor at the University of Texas School of Nursing, served as chief nurse for Operation Rebound, and the nursing services of both hospitals were remarkably efficient, reports indicate.

Almost every visitor commented on the enthusiasm of the volunteer workers and their eagerness to be of service. As noted by one observer, "There exists a community spirit which if properly directed would be most effective in the handling of mass casualties resulting from a disaster of great magnitude."

Prior to Operation Rebound the FCDA hospital had never been set up in a short enough time to make it useful in a real emergency. With a new system of functional packing and color-coding of boxes of equipment and supplies, both hospital units were set up and ready to receive patients within an hour's time (it was a sore point with the Texas group that the Houston papers reported erroneously that Baylor beat Texas). Detailed notes were kept on deficiencies of equipment in the units for revision of FCDA units in other areas. Meanwhile Dr. John B. Truslow, executive director of the University of Texas Medical Branch, has announced that the Texas unit is available for loan to other communities. Thirty-two additional units stockpiled at Camp Swift near Bastrop also may be assigned to Civil Defense organizations on request to the Federal Civil Defense Headquarters in Battle Creek, Mich.

The facilities of the hospital units were not taxed to capacity, physicians manning them declare. Each could have handled 500 patients in a six-hour period with a much smaller personnel. The suitability of modern one-story schools for use as emergency hospitals was well demonstrated at West Columbia, and it has been suggested by Dr. Frank Berry, Assistant Secretary of Defense, who attended the exercise, that the possibility of using modern motels also be considered for similar use.

Ironically enough, if Houston actually had been the target of a 20 megaton bomb, as postulated in the hypothetical problem, both hospital units would have been wiped out by lethal radiation. Although preliminary calculations had been made to the effect that communities 26 miles from the city would be free of upwind fall-out, about midnight on March 29 winds shifted, and both installations were within the critical area. It is recommended, therefore, that future exercises allow for sufficient distance from large cities for maximum safety of emergency hospital units.

Dr. T. G. Blocker, Jr., of the University of Texas Medical Branch faculty, commander of Operation Rebound, suggests that members of the Texas Medical Association interested in disaster planning should avail themselves of the "Emergency Medical Treatment" bulletin published by the Federal Civil Defense Administration (30 cents from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) and also a small pamphlet prepared by the American Psychiatric Association Committee on Civil Defense entitled "Psychological First Aid in Community Disasters" (35 cents from the American Psychiatric Association, 1785 Massachusetts Avenue, N. W., Washington 6, D. C.).

Disaster Plan Pays Off In Tornado-Torn Dallas

A few minutes before 5 p. m. on Tuesday, April 2, a snarling tornado attacked Dallas, ripping an 18-mile path across its residential areas, killing 10 persons and injuring hundreds of others.

Only 10 minutes later, Operation Disaster—a minutely-detailed emergency service plan developed by Dallas Disaster Commission hospitals and physicians—was in effect. (It had been dress-rehearsed just four days before.)

And within six hours, the staff of the county's new Parkland Memorial Hospital had treated 176 injured, received the bodies of seven, fought in vain to save the lives of three other victims. Methodist Hospital had received 18 patients. At Dallas' two other major hospitals, Baylor and St. Paul, emergency staffs were ready and on a standby basis to take any overflow.

By midnight, physicians could visit the emergency shelters and see disaster victims being fed, clothed, and furnished cots under direction of Col. John Mayo of the Dallas County Red Cross Disaster Committee.

Local newspaper reporters covering the disaster were lavish in their praise of the plan and the medical team which made it workable. Wrote Judy Bonner, *Dallas Times-Herald* medical reporter: "I was impressed with the efforts to help the families of victims as well as the rendering of medical care. There were a thousand kindnesses in a combined effort to make the tragedy seem less horrifying."

"We do not consider the tornado to be the greatest disaster which could happen in Dallas," adds Millard J. Heath, Dallas County Medical Society executive secretary, "but it surely was a test of our facilities."

Operation Joint Effort

Responsibility of caring for the injured and maintaining health services for the uninjured during the Dallas catastrophe fell upon many groups and individuals, as it will on future such occasions.

"The evolution of medical disaster planning in Dallas has been very sound," says Dr. Ozro T. Woods, vice-chairman and chief of the Health Division of the Dallas City-County Disaster and Civil Defense Commission. "It now has developed into an excellent plan which should be a permanent part of the health services of the city."

Working under the leadership of General Frank Bell is the Rescue Service of the Disaster Commission, whose function is to rescue the injured buried under rubble. One of the best Rescue Services in the nation, this outfit has leaders which were sent to the Federal Civil Defense Administration school for rescue workers in Olney, Md., by Dallas City-County and several of the larger industries in the area; workers trained in a local school for volunteers; and rescue trucks completely equipped at their own expense by the industries to supplement those furnished by the city and county.

Under direction of Disaster Transportation Services, all ambulance companies in Dallas were on the job to remove the injured promptly, while Health Service takes over as soon as the injured are made available for transportation to hospitals and is responsible until patients are discharged and turned over to the Welfare Service.

Nursing resources of the community have been canvassed and organized for call to hospital emergency shelters or wherever needed, under a joint effort of the Dallas County Chapter Red Cross Nursing Service and District IV, Graduate Nurses organization.

All Dallas blood banks, as well, have ready emergency plans, the importance of their services having been demonstrated during the Texas City disaster several years ago.

Meanwhile, public health services play an important part in the Dallas disaster schedule of the present and future. Doctors of the city and county health departments have complete plans for safeguarding water and food supplies and have been assigned extra doctors by the Dallas County Medical Society if they are needed.

Hospital Planning Vital

Meeting and solving the problem of handling disaster victims in hospitals already running at full capacity all the

The emergency room of Parkland Memorial Hospital about one hour after a tornado struck Dallas on April 2.

A young tornado victim is wheeled to the operating room at Parkland after receiving initial treatment, including glucose for shock, in the hospital's emergency room. In the foreground, another survivor awaits emergency treatment.

(Photographs courtesy of United Press.)

time has been the Dallas Hospital Council, which has coordinated the development by each hospital of its own disaster program.

Further, when the new Parkland Memorial Hospital was built, its construction was planned to meet disaster needs, and the new unit being planned by Methodist Hospital will also be arranged for quick adaptation.

Parkland was the first hospital in the nation, actually, to emphasize planning of the building for disaster needs: all services for immediate treatment of the injured were grouped on the ground floor, and nurses' classrooms were placed on this floor and equipped with removable walls so that space for more than 100 patients could be added. When the new clinic building is completed, space and facilities for care of injured will be greatly increased, since all of the two-bed rooms were made large enough for setting up of a third bed.

The other Dallas hospitals have planned to adapt all available space for disaster patients, and, if the load becomes too great, patients who would leave the hospital soon will be asked to go home early to make more beds available.

Each hospital employe in Dallas, also, has been supplied with a Civil Defense identification card so he can get to the hospital quickly if called back for emergency duty.

Dallas County Society Helps

The Dallas County Medical Society had assumed the responsibility of organizing doctors for disaster service. Chairmanned by Dr. Ben Merrick, a committee which represents the society and the staffs of the respective hospitals organized emergency teams (two for each institution) containing specialists to care for every kind of injury.

Hospital staff doctors have had regular drills, in part responsible for the smoothness of the operation during the April 2 disaster. When the tornado hit, for instance, and Parkland's public address system blared, "Report to the emergency room at once!", doctors, nurses, telephone operators, and orderlies sprang into immediate action.

Telephone operators first called the hospital's doctors in Disaster Group I, and, an hour later, some of those in Group II. Dr. Morris J. Fogelman, head of the emergency service and professor of surgery at the University of Texas Southwestern Medical School, directed the 200-member hospital team.

On arrival, every patient was seen by Dr. Fogelman, who sent the seriously injured to Dr. Jerry A. Stirman. The latter assigned physicians and nurses to each one. Patients with minor injuries were sent to another area where doctors assisted by nurses and students from the medical school began immediate treatment. At one time, 14 operating rooms were in use. As those with minor injuries were discharged, the Dallas County Red Cross Disaster Committee took over their care also.

The Health Committee of the City-County Disaster and Civil Defense Commission consists of Drs. Woods, Merrick, Everett Fox, Henry Winans, J. W. Bass, Jim Pickard; Dr. Frank Kidd representing Baylor, Dr. Sam Stuart representing Methodist, Dr. Joseph Murphy representing St. Paul's, and Dr. Dan Gill representing Parkland hospitals; and Albert Scheidt, Parkland director.

This, then, is how one community—and its doctors—prepared to handle an emergency which they had hoped would never come.

NATIONAL CIVIL DEFENSE CONFERENCE SET

The fifth annual National Medical Civil Defense Conference, sponsored by the Council on National Defense of the American Medical Association, will be held June 1 at the Waldorf-Astoria in New York. The program will be devoted to the medical aspects of the hazards and effects of lethal radiation or radioactive fallout. The one day session with luncheon is open to interested physicians without fee. Those who plan to attend should send their names, addresses, and their intentions about staying for luncheon to Frank W. Barton, secretary of the AMA Council on National Defense, 535 North Dearborn Street, Chicago 10.

PERSONALS

Dr. Denton A. Cooley, associate professor of surgery at Baylor University College of Medicine, Houston, was among out-of-state lecturers participating in the fourth annual cardiovascular seminar sponsored by the Mississippi Heart Association April 1-5. The session was conducted at the University Medical Center in Jackson.

Dr. Michael E. DeBakey, Houston, discussed "Surgical Considerations of Acquired Diseases of the Aorta: Analysis of 500 Cases," when the Missouri State Medical Association held its annual session in Kansas City March 31-April 3.

Dr. Albert W. Hartman, San Antonio surgeon, was among the chief speakers at the May 5-7 annual convention of the Texas Savings and Loan League in Houston. He is president of the San Antonio Surgical Society, governor of the American College of Surgeons, and chairman of the Council on Medical Education and Hospitals of the Texas Medical Association.

Dr. Dick Cason, Hillsboro, has been presented the annual Outstanding Citizen Award of the Hillsboro Junior Chamber of Commerce for his work in heading tuberculosis and cancer drives.

Dr. Z. T. Scott, Austin, and *Mrs. Joe Gilbert*, widow of the late *Dr. Joe Gilbert*, Austin, are prominently mentioned in a new book, "Weekend in September," released April 15 by Henry Holt and Company. Written by John Edward Weems, the book concerns the Galveston flood of 1900. Mrs. Gilbert was then Daisy Thorne, the young school teacher fiancee of Dr. Gilbert, whom she married in Galveston's first post-flood wedding.

Dr. Ruth Bain, Austin, has been named by the Austin Soroptimist Club as one of four of the city's outstanding women for the year.

Dr. Victor E. Schulze, San Angelo, has been elected governor for Texas for the American College of Physicians, succeeding *Dr. David W. Carter, Jr.*, Dallas, who has served the maximal term.

Dr. P. I. Nixon, San Antonio, has received the $1,000 Summerfield G. Roberts Award for the book which best portrays the influence, ideals, and traditions of the people of the Republic of Texas for his "The Early Nixons of Texas." The award was announced during the meeting in Austin in April of the Texas State Historical Association, which also named Dr. Nixon an honorary fellow for life. *Dr. J. M. Coleman*, Austin, was among the speakers at the meeting, his topic being "Early Medicine in the Austin Area: George P. Hachenberg, An American Leonardo da Vinci."

Dr. B. F. Stevens, El Paso, has announced his near retirement after 58 years of practice. Dr. Stevens, who was 83 years of age on May 1, has moved his office to his home and expects to take care only of his old patients.

Dr. Vernon A. Tuck, Sherman, has recently been elected mayor of his home city, first physician ever to hold that office in Sherman.

Dr. Stanley W. Olson, dean of the Baylor University College of Medicine, has been named chairman of the Houston Chamber of Commerce Health Committee. This group is to conduct "an exhaustive study to determine the most

pressing needs in the community in health as projected to 1975."

Miss Nancy Jane Hallenburg of Houston became the bride of *Dr. James E. Johnson* of Galveston in rites read March 16 in that city.

Daughters were born recently to *Dr. and Mrs. James Goodnight* of San Antonio; *Dr. and Mrs. Adolph F. Kauffmann* in Fort Worth, December 15; *Dr. and Mrs. Teddy M. Sousares* in Austin, March 30.

Dr. and Mrs. Tom Glass of San Antonio are the recent parents of twin boys. A son was also born to *Dr. and Mrs. William Wagnon* in Galveston, April 2.

High School Essay Winners Announced

Winners of the 1957 Texas essay contest sponsored by the Association of American Physicians and Surgeons are James Brady of Harlingen, first place; Edward Massin of Port Arthur, second; and Jim Fetters, Port Arthur, third. They received $125, $75, and $25 awards respectively, and their papers have been forwarded to the national competition.

Subject choices for the high school students' papers this year were "The Advantages of Private Medical Care" and "The Advantages of the American Free Enterprise System."

The contest was especially successful this year in the southern part of the state, says Dr. Durwood E. Neal, Fort Worth. In the Houston area, alone, 526 essays were submitted.

AMA Joins in Pushing Pension Plan

Seven associations have banded together to form the American Thrift Assembly for Ten Million Self-Employed. In addition to the American Medical Association, charter members include the American Bar Association, American Institute of Accountants, American Retail Federation, National Association of Real Estate Boards, American Dental Association, and National Association of Retail Druggists.

Objective of the group is passage of legislation to authorize deferment of income tax on a portion of income if put into a retirement or annuity program, with tax to be paid as the money is received back in the form of retirement benefits. Headquarters are 1025 Connecticut Avenue, Washington, D. C., with F. Joseph Donohue as national chairman.

Industrial Noise Can Cause Deafness

Prolonged exposure to the noises in many industrial environments can produce a permanent hearing loss. Fortunately, noise-induced hearing loss can be prevented for the large majority of persons exposed to noise if injury is discovered in time and noise is properly controlled. So writes the Subcommittee on Noise in Industry, Committee on Conservation of Hearing of the American Academy of Ophthalmology and Otolaryngology in a pamphlet outlining a hearing conservation program. The amount of deafness from noise is a personal factor; also it may be difficult for the victim to recognize because injury may take place in the sound range outside of the speech range. The permanent loss may become serious unless suitable tests are run on a periodic basis.

The criteria for considering a hearing conservation program are met whenever persons have difficulty communicating by speech while in the noise; head noises or ringing in the ears after working in the noise for several hours; or loss of hearing that has the effect of muffling speech and certain other sounds after several hours of exposure to the noise.

To be effective, a hearing conservation program should include a noise exposure analysis, provision for control of noise exposure, and measurement of hearing. Medical supervision must be available if a hearing conservation program is to serve its dual purpose of preventing hearing loss and providing valid records for compensation claims. Companies without full-time medical departments can satisfy the general requirements of medical supervision by employing medical consultants.

Present knowledge of the relations of noise exposure to hearing loss is not yet adequate to propose "safe" amounts of noise exposure. However, a level where the initiation of noise exposure control and test of hearing is advisable is proposed in the pamphlet.

Mention is made of the environmental control techniques, and a more complete discussion is given of the use of personal protective measures and their values in various levels of noise.

Six pages of the 24 page pamphlet are devoted to the measurement of hearing. A discussion is given on the method of testing, frequency of testing, the equipment and procedures, the type of facilities needed, and method of recording the data. For those concerned with this growing industrial health problem, references for future reading are given.

The pamphlets may be purchased from the Director of Research, Dr. Aram Glorig, 111 N. Bonnie Brae, Los Angeles 28.

Poliomyelitis Fellowships

The National Foundation for Infantile Paralysis will make available a limited number of fellowships for medical students who wish to take advantage of vacation time for study during 1957. The program provides six fellowships for each approved medical school, two each in research in the biological and physical sciences related to medicine, public health and preventive medicine, and rehabilitation.

Details are available from the Professional Education Division, National Foundation for Infantile Paralysis, 120 Broadway, New York 5.

Texas Hospitals Report on Drugs

Veterans Administration hospitals in Houston and Waco were among the 40 reporting on their studies with the tranquilizing drugs, promazine and chlorpromazine, when the VA held its third annual conference on chemotherapy in psychiatry May 9-10 in Downey, Ill. Dr. Jesse F. Casey of Washington, D. C., has been acting chairman of the executive committee for VA's nationwide evaluation of tranquilizing drugs in mental illness.

Obstetrics Certification Deadline Named

Applications for certification by the American Board of Obstetrics and Gynecology, new and reopened, for the 1958 Part I Examinations are now being accepted. Deadline for receipt of applications is September 1, and further information may be received from Dr. Robert L. Faulkner, Secretary of the Board, 2105 Adelbert Road, Cleveland 6, Ohio.

Texas Has 8,872 M.D.'s Properly Licensed

Following the annual registration of physicians licensed by the Texas State Board of Medical Examiners, the secretary, Dr. M. H. Crabb of Fort Worth, has reported that as of April 1 there were 8,872 doctors of medicine registered in the state, 2,905 registered out of the state, making a total of 11,777 doctors of medicine licensed by Texas; there were 633 doctors of osteopathy registered in the state, 373 out of the state, a total of 1,006. Twelve licenses in Texas (62 out of state) were cancelled for nonpayment of the annual registration fee.

Dr. Crabb points out that all doctors, whether practicing in the state or not, whether residing in the state or not, and whether serving in the armed forces or not, must register and pay their $5 fee annually by March 1 or be subject to cancellation of their license after they have been so notified by two registered letters.

Warning against the employment of physicians not licensed or eligible for license in Texas, Dr. Crabb recommends that unknown practitioners be asked to show their licenses. He indicates that a handbook of registered physicians for 1957 which will show their names and addresses is being printed now. The Board of Medical Examiners will be glad to give information about licensees upon request.

New Problems Seen as Doctor Draft Ends

The United States Department of Defense, preparing for expiration of the special doctor draft act June 30, is moving ahead with legislation to amend the regular draft act so that physicians may be called up selectively.

The proposed amendment in effect would waive the Selective Service Act's prohibition against discrimination to the extent that physicians, dentists, and allied scientists could be called up by their professional classification. Thus these men, because they are in the particular professional groups, would be subject to special calls and not necessarily inducted in the same order as others in their same age group.

Causing some concern in the medical profession is the possibility that June 30 will see the end, also, of the National Advisory Committee to Selective Service and its affiliated volunteer state and local groups. The Defense Department amendment setting up the new doctor procurement mechanism under the regular draft has no provision for continuing the committee. Selective Service had not recommended retaining the liaison group.

X-Ray Diagnostic Developments Cited

Radiological examinations have reached a state where soon it will be possible to study routinely many more human organs as they actually are functioning, and conclusions can be drawn about the presence of disease before any structural changes are even suspected.

That is the prediction of Philadelphia radiologist Dr. W. Edward Chamberlain in the December issue of *The American Journal of Roentgenology, Radium Therapy and Nuclear Medicine.*

One of his reasons: With the help of new electronic devices, x-ray motion pictures have become an important tool for the physiologist. Short bursts of film may be made at sequence rates of 30, 60, 100, or even 200 frames per second, then projected at 12 to 24 frames per second for "slow motion" analysis.

Vocational Nurse Force Grows

Next examination for licensing by the Board of Vocational Nurse Examiners has been set for August 3, the chairman, Dr. R. D. Holt, reports. Counting the 383 candidates who passed examinations in March and were granted licenses, a total of 17,778 vocational nurse licenses have been issued since the state law providing for such licensing went into effect in September, 1951.

On April 5 of this year, the Governor signed H. B. 99 amending the vocational nurse act to retain a licensed physician, registered nurse, and hospital administrator on the Board of Vocational Nurse Examiners; otherwise, all nine appointments to the board would have been licensed vocational nurses after September. Among other changes provided by H. B. 99, examining and licensing of undergraduate professional nurses with at least two years in an accredited school of professional nursing is allowed.

A limited number of a "Directory of Licensed Vocational Nurses in Texas" issued in March is still available without charge to agencies requesting it and stating their particular need for it. Inquiries may be addressed to the board at 904 Lavaca, Austin.

MEDICOLEGAL NOTES

Liability from Wrong Diagnosis

The question has arisen from time to time as to the effect of incorrect diagnosis and what possible liability such incorrect diagnosis and what possible liability such incorrect diagnosis might have upon the physician involved.

There are actually two types of situations that can be involved in a case concerning incorrect diagnosis. One of these would be a case in which the proper treatment followed an incorrect diagnosis, and the other situation would be a case in which improper treatment followed an incorrect diagnosis.

In a discussion of the possibility of liability of a physician where proper treatment has followed an incorrect diagnosis, the case of Taylor v. Suffield* would seem to give the result that would be reached. In this case, the physician had been sued for malpractice for the removal of the uvula palate and tonsillar pillars, and for faulty diagnosis and treatment for adenoids in suppurating ears in a tonsillectomy on a minor child 4 years old. In this case, the court held:

> It is also the rule in this connection "that unless improper treatment follows, a wrong diagnosis gives no right of action" (48 C. J. Sec. 113, pp. 1126-1127). This same authority at page 1142 announces the following rule applicable to this case: "Negligence on the part of the physician or surgeon is not presumed but must be affirmatively proved. The same is true ordinarily with respect to the possession by the physician or surgeon of the requisite skill and learning. On the contrary, in the absence of evidence on the subject, it will be presumed that a physician or surgeon discharged his full duty to the patient, including the exercise of reasonable care and skill in his treatment."

As can be seen from the result reached in this case, unless improper treatment follows an incorrect diagnosis, there will be no liability on the part of the physician. In fact, this holding would seem to indicate that even though the

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physician had been negligent in arriving at his incorrect diagnosis, if the proper treatment followed, there would still be no liability.

Possibly the type of situation which would arise most often is one in which improper treatment has followed an incorrect diagnosis. In answering the problem posed by a situation of this sort, it might be well to refer to the case of Edwards v. West Texas Hospital,† in which the court made the following statement:

> It is also true as asserted by appellees in their seventh counter-proposition that where due care, diligence, judgment and skill are exercised, a mere failure to diagnose correctly does not render a physician or surgeon liable.

Also in point is the case of Taylor v. Suffield* in which the court stated that:

> Appellee charged appellant with having made a faulty diagnosis and treatment of him for adenoids and suppurating ears thereby causing him to lose his power of hearing, and in the language of the decisions, the burden was upon appellee to show negligence or failure on the part of appellant to use the requisite care and skill in the diagnosis and treatment of him for adenoids and suppurating ears and the causal connection between his breach of duty in that regard and the loss of appellee's ability to hear.

Still another case in point is Christian v. Galutia,‡ in which the alleged malpractice action was based upon the diagnosis and treatment involved in the birth of the plaintiff's child. In that case, the court stated that:

> In order to prove that appellant was guilty of actionable negligence in failing to deliver the child by cesarean birth on the morning of November 16, 1947 and delaying such operation until the evening of the same day, it was necessary for appellees to show by competent admissible evidence that such failure and delay constituted a breach of the legal duty which appellant owed to his patient of exercising ordinary skill and care in his professional efforts properly to deliver the child. Expert medical evidence was essential to such proof because the matters of determining whether to use forceps in the delivery of the child, or to do a version extraction, or to do a cesarean section, and when or under what circumstances, if at all, a reasonably skillful physician and surgeon would, or should, have resorted to any or all of these various alternatives involving the practice of a highly specialized art and a learned profession with respect to which no layman could have any personal knowledge or experience upon which the court and jury might rely for guidance.

The previously mentioned cases would seem to indicate clearly that for a physician to be held liable when incorrect treatment has followed an incorrect diagnosis, the plaintiff must show that the incorrect diagnosis which resulted in the incorrect treatment was a result of the physician not exercising the ordinary skill and care that would have been exercised by a physician in the same or similar circumstances.

To sum up better the law upon these two points, it would be well to remember that, first, unless the treatment complained of was incorrect, the correctness or incorrectness of the diagnosis will not bring about liability on the part of the physician. And, second, in a case in which both the treatment and the diagnosis are incorrect, it is necessary for the complaining party to prove that the physician was negligent in arriving at his diagnosis for the ensuing incorrect treatment to be actionable.

—PHILIP R. OVERTON, LL.B., Austin.

*52 S.W. (2d) 788.
†89 S.W. (2d) 801.
‡236 S.W. (2d) 176.

MEMORIAL LIBRARY

Recent Publications by Texas Physicians

Following is a partial list of recent articles published by Texas physicians and available at the Memorial Library of the Texas Medical Association. Articles appearing in the *Texas State Journal of Medicine* are not included. The list will be continued in a subsequent issue.

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Dr. Henry L. Hilgartner, Austin, 53 journals.
Dr. S. N. Key, Jr., Austin, 4 journals.
J. B. McClung, Atlanta, 4 books.
Dr. Morris Polsky, Austin, 11 journals.
Dr. Marion P. Primomo, Dilley, 96 journals.
Dr. Nelson L. Schiller, Austin, 79 journals; reprints.
Dr. Lorraine I. Stengl, El Campo, 2 books; 49 journals; reprints.
Dr. J. J. Stephen, Robstown, 18 bound journals; 251 unbound journals.
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★ Motion Pictures

The Candy Stripers

Sound, black and white, 10 min., 1957.

Telling of opportunities for volunteer work by high school students in hospitals, this picture was filmed at Baptist Memorial Hospital in San Antonio. (Deposited by the Texas Commission on Patient Care.)

★ Books

Peptic Ulcer; Diagnosis and Treatment

CLIFFORD J. BARBORKA, M.D., D.Sc., F.A.C.P., *Associate Professor of Medicine and Chief, Gastrointestinal Clinics, Northwestern University Medical School, and* E. CLINTON TEXTER, JR., M.D., *Associate in Medicine and Assistant Chief, Gastrointestinal Clinics, Northwestern University Medical School, Chicago. 290 pages. $7. Boston, Little, Brown and Company, 1955.*

This small book is the successful attempt of the authors to incorporate their experiences and current opinions of medical and surgical treatment of peptic ulcer. The practicing physician is kept in mind as the etiology, pathogenesis, and diagnosis are developed. Particular emphasis is laid on the doctor-patient relationship and the necessity of the patient's following the prescribed therapy. Each chapter is in the form of a small monograph. The text is intelligible to an educated patient and could be used as a guide for him under his physician's direction. An appendix carries menus and food recipes for a diet in peptic ulcer management. This book is a splendid summary of the subject and should be valuable to medical students and general practitioners.

The Human Adrenal Cortex, Vol. VIII

Ciba Foundation Colloquia on Endocrinology. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.Ch. *and* MARGARET P. CAMERON, M.A., A.B.L.S., *editors for the Ciba Foundation, assisted by* JOAN ETHERINGTON. *665 pages. $10. Boston, Little, Brown and Company, 1955.*

Porphyrin Biosynthesis and Metabolism

Ciba Foundation Symposium. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.Ch. *and* ELAINE C. P. MILLAR, A.H.W.C., A.R.I.C., *editors for the Ciba Foundation. 308 pages. Boston, Little, Brown and Company, 1955.*

Vascular Surgery

Medical Department, United States Army, Surgery in World War II. DANIEL C. ELKIN, M.D., *and* MICHAEL E. DEBAKEY, M.D., *editors. 465 pages. Washington, D. C., Office of the Surgeon General, Department of the Army, 1955.*

This volume effectively covers vascular injuries and their complications as a result of injuries. It also covers peripheral vascular disorders with the exception of trench foot,

immersion foot, and cold injuries, which are to be discussed in another volume.

Many significant technical advances were made and are illustrated and discussed. This volume is particularly important because vascular injuries are not commonplace in civilian life, and before World War II few surgeons had any large experience with this condition. The establishment of three vascular centers to which experienced surgeons were attached was a significant step and one which promoted the advance technically in the handling of vascular lesions. For the first time there was a concentration of clinical material under specialists whose background and training were suited to carry out definite treatment and at the same time carry on important phases of clinical investigation.

Some of the subjects covered are acute battle incurred arterial injuries, arterial aneurysms, arteriovenous fistulas, surgical management, operative procedures, anticoagulant therapy, reparative surgery, and adjunctive measures such as operative sympathectomy and postoperative management.

Considerable attention is also given to the diagnosis, management, and treatment, conservatively and with surgical aspects, such as sympathectomy and embolectomy in such conditions as thromboangiitis obliterans, arteriosclerosis, arterial thrombosis and embolism, Reynaud's disease, and post-traumatic vasomotor disorders.

All of us are now aware of the great work being done by Dr. DeBakey and associates in our own state in vascular surgery in which whole sections of great blood vessels may be replaced with homografts. Now that the use of plastic materials has entered the field, we may all be asking ourselves just how far we will be able to go.

This volume is a contribution which undoubtedly will be of considerable interest and use to anyone interested in the subject of vascular conditions and their management and repair.

—Joe C. Rude, M.D., Austin.

A Doctor's Marital Guide for Patients; Written for Those Married or About to Be Married

BERNARD R. GREENBLAT, B.S., M.D., *Associate Attending, Obstetrics and Gynecology, Kings County Hospital, Brooklyn, N. Y.; Clinical Instructor, Obstetrics and Gynecology, University of the State of New York, School of Medicine, Brooklyn. 88 pages. $1.50. Chicago, The Budlong Press, 1956.*

A Doctor's Marital Guide for Patients; Written for Those Married or About to Be Married (Catholic Edition)

BERNARD R. GREENBLAT, B.S., M.D., *Associate Attending, Obstetrics and Gynecology, Kings County Hospital, Brooklyn, N. Y.; Clinical Instructor Obstetrics and Gynecology, University of State of New York, School of Medicine, Brooklyn. 88 pages. $1.50. Chicago, The Budlong Press, 1956.*

Practical Fluid Therapy in Pediatrics

FONTAINE S. HILL, M.D., *Assistant Professor of Pediatrics, University of Tennessee College of Medicine, Memphis. 275 pages. $6.50. Philadelphia, W. B. Saunders Company, 1954.*

Ophthalmologic Diagnosis

F. HERBERT HAESSLER, M. D., *Professor and Director, Division of Ophthalmology, Marquette University School of Medicine. 387 pages. $8. Baltimore, Williams and Wilkins Company, 1953.*

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JAMES CLARK MOLONEY, M. D., *252 pages. New York, Philosophical Library, 1954.*

Physician's Federal Income Tax Guide, 1956 Edition

HUGH J. CAMPBELL *and* JAMES B. LIBERMAN, *edited by* HENRY D. SHEREFF. *94 pages. $2.50. Great Neck, N. Y., Channel Press, Inc., 1955.*

Denial of Illness; Symbolic and Physiological Aspects

EDWIN A. WEINSTEIN, M.D., *Associate Attending Neurologist, Mount Sinai Hospital, New York; Consultant Neuropsychiatrist, Army Medical Service Graduate School, Washington, D. C., and* ROBERT L. KAHN, Ph.D., *Research Psychologist, Mount Sinai Hospital, New York. 166 pages. $4.75. Springfield, Ill., Charles C Thomas, 1955.*

Nervousness, Indigestion, and Pain

WALTER C. ALVAREZ, M.D., *Emeritus Professor of Medicine, University of Minnesota (Mayo Foundation); Emeritus Consultant, Division of Medicine, Mayo Clinic. 235 pages. $3.50. New York, Harper and Brothers, 1954.*

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AUGUST PI SUNER, *Authorized English translation by* CHARLES M. STERN. *337 pages. $7.50. New York, Philosophical Library, 1955.*

Pathology for the Surgeon

WILLIAM BOYD, M. D., Edinburgh; F.R.C.S., Canada; F.R.C.P., London; M.R.C.P., Edinburgh; F.R.S., Canada. *Lecturer on Humanities in Medicine, University of Toronto; formerly Professor of Pathology, Universities of Manitoba, Toronto, and British Columbia, ed. 7. 737 pages, with 547 illustrations including 10 in color. $12.50. Philadelphia, W. B. Saunders Company, 1955.*

Synthetic Drugs: A Handbook for Chemists, Physicians, and Pharmacists

H. RONALD FLECK, M.Sc., F.R.I.C., F.R.M.S. *380 pages. $12.50. London, Cleaver-Hume Press Ltd., 1955.*

Medical and Psychological Teamwork in the Care of the Chronically Ill

MOLLY HARROWER, Ph.D., Ed., *Research and Consulting Psychologist, New York. 232 pages. $5.75. Springfield, Ill., Charles C Thomas, 1955.*

This book contains reports and discussions of a conference held March 28-31, 1954, in Galveston, under the auspices of the Josiah Macy, Jr., Foundation, New York, and the University of Texas Medical Branch.

Extrasensory Perception

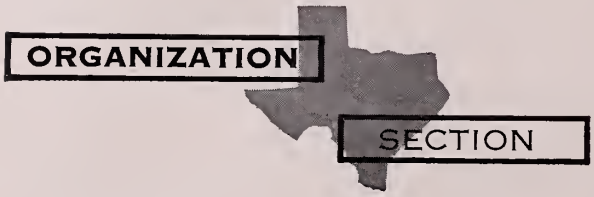
Ciba Foundation Symposium. G. E. W. WOLSTENHOLME, M.A., M.B., B.Ch., *and* ELAINE C. P. MILLAR, A.H.W.C., A.R.I.C., *Eds. 240 pages. $6. Boston, Little, Brown and Company, 1956.*

Thallium Poisoning

J. J. G. PRICK, *Professor of Neurology and Psychiatry, University of Nijmegen;* W. G. SILLEVIS SMITT, *Professor of Neurology, University of Utrecht, and* L. MULLER, *Industrial Physician, Enschede, The Netherlands. 155 pages. $3.95. Houston, Elsevier Publishing Company, 1955.*

The Rochester Regional Hospital Council

LEONARD S. ROSENFELD, M.D., M.P.H., *and* HENRY B. MAKOVER, M.D. *204 pages. $3.50. Published for The Commonwealth Fund. Cambridge, Mass., Harvard University Press, 1956.*



★ American Medical Association

American Medical Association Session To Attract Many Texans June 3-7

Texas physicians attending the American Medical Association's annual meeting in New York City June 3-7 will find a program of exhibits, scientific lectures, medical films, and color television programs lined up for their pleasure and enlightenment.

Approximately 18,000 physicians from all over the country are expected to participate in this world-famous "short course" in postgraduate medical education. Meanwhile, some 3,000 members of the Woman's Auxiliary will gather at the Roosevelt Hotel for their own annual convention.

Dr. David B. Allman, Atlantic City, will be inaugurated as President of the AMA at ceremonies Tuesday night, June 4. The event will be telecast locally to the general public, but is open to physicians, their families, exhibitors, and guests.

Focal point of the scientific program will be the Coliseum—New York's new exhibition hall—with four floors devoted to technical and scientific exhibits, many of the scientific meetings, and the color television program. A number of section meetings, plus the scientific film program, will be held in hotels nearby, and headquarters for the House of Delegates will be the Waldorf-Astoria.

An outstanding scientific lecture schedule is being arranged by the Council on Scientific Assembly. Kicking off this general program on Monday morning, June 3, will be a review of recent progress in surgery, while the afternoon session will deal with recent advances in medicine. Tuesday morning's general meeting will feature discussion on the use and abuse of mood-altering drugs in daily practice. Formal section meetings will run from Tuesday afternoon through Friday morning.

A member of the Texas Medical Association, Dr. Michael E. DeBakey, Houston, will be chairman of the American panel group when American and British physicians are linked in discussion across the Atlantic via the new underseas cable during the convention. Arranged by Smith, Kline and French Laboratories, the telephone hookup will join the AMA group with doctors at the Harvey Tercentenary Congress in London, and the two panels will discuss "Results of Cardiac Surgery."

The color TV program presenting live surgical procedures from Roosevelt Hospital will again be sponsored in cooperation with Smith, Kline and French Laboratories. Further, more than 20 foreign countries are sending special films dealing with many aspects of medical science to the "international medical film program."

Registration officially opens at the Coliseum Monday at 8:30 a. m. and closes Friday noon; advance registrations will be accepted Sunday from 12 noon to 4 p. m. Further details are published in the April 20 issue of *The Journal of the American Medical Association.*

Texas will have seven delegates to the House of Delegates at the meeting. These are Dr. Joseph B. Copeland, San Antonio; Dr. John K. Glen, Houston; Dr. L. C. Heare, Port Arthur; Dr. Milford O. Rouse, Dallas; Dr. Troy A. Shafer, Harlingen; Dr. Truman C. Terrell, Fort Worth; and Dr. James H. Wooten, Jr., Columbus. Delegate from the Section on Internal Medicine will be Dr. Charles T. Stone, Sr., Galveston.

Appointed to reference committees of the House at the New York session are Dr. Rouse, chairman, Executive Session; Dr. Shafer, Reports of Officers; Dr. Glen, Rules and Order of Business.

Dr. F. J. L. Blasingame, Wharton, is a member of the AMA Board of Trustees, serving until 1959. Texans on House of Delegates' standing committees include: Dr. Charles T. Stone, Sr., Galveston, Council on Medical Education and Hospitals; Dr. B. E. Pickett, Sr., Carrizo Spring, chairman, Council on Constitution and By-Laws; Dr. Michael E. DeBakey, Houston, Council on Scientific Assembly; Dr. V. C. Baird, Houston, Council on Industrial Health; and Dr. Allen T. Stewart, Lubbock, Council on Rural Health.

Presenting papers before the various sections will be Drs. A. S. Keats, Y. Kurosu, and J. Telford, Houston; Dr. James S. Reitman, Laredo; Drs. Paul E. Teschan and Charles R. Baxter, Fort Sam Houston; Dr. Morton H. Leonard, El Paso; Drs. Bernard T. Fein and Lawrence M. Shefts, San Antonio; and Dr. George W. Dorman, Dallas. Dr. J. Fred Mullins, Galveston; Dr. Elbert De Coursey, Fort Sam Houston; and Dr. Jarrell E. Miller, Dallas, will serve as moderators and leaders of discussion.

Participating in the AMA motion picture program are Drs. Denton A. Cooley and Benjamin A. Belmonte, Houston, and Dr. Robert A. Murray, Temple.

Among those presenting scientific section exhibits are Lewis Waters, Dr. Arthur Grollman, Miss Patricia O'Neill, and Miss Ruth Sanders, University of Texas Southwestern Medical School, Dallas; Dr. Heinrich W. Rose, School of Aviation Medicine, Randolph Air Force Base; Drs. Jules Rivkind and Virginia Healy, Brooks Air Force Base; Drs. B. H. Williams, C. J. Cramm, Jr., and Robert A. Murray, Scott and White Clinic, Temple; Drs. John H. Moyer, Sam A. Kinard, Ralph Ford, Edward Dennis, Coleman Caplovitz, and Paul K. Conner, Jr., Baylor University College of Medicine, Houston; Drs. V. P. Collins, P. Gibbs, and I. David, Baylor University College of Medicine and Jefferson Davis Hospital, Houston; Drs. E. J. Tucker, Michael K. O'Heeron, James R. Fish, Marvin G. Rape, and Newton F. McDonald, Houston.

Texas delegates to the convention will maintain a Texas Suite throughout the meeting in the Waldorf-Astoria Hotel. It will be open from 3 until 9 p. m. daily, Monday through Thursday, June 3-6, and all members of the Texas Medical Association, their wives, and friends are cordially invited to visit.

Post-session tours to Europe and Bermuda are being of-

fered AMA members. Two European tours are offered, and, in cooperation with the World Medical Association, special scientific sessions have been planned in London, Paris, and Geneva. There are three trips to Bermuda. Further information is available from William J. Glennon, P. O. Box 3433, Chicago 54.

★ Texas Medical Association

Dallas Session Full of Scientific, Business Action

Although no records were set in attendance at the annual session of the Texas Medical Association in Dallas, April 27-May 1, a total of 2,802 braved the much publicized rain and high waters to register at the meeting, taking advantage of a scientific program which featured 24 out-of-state guest speakers and included a score of specialty group meetings in addition to the refresher courses, general meetings, scientific section programs, scientific and technical exhibits, motion pictures, and social and sport activities.

New Officials

Dr. Denton Kerr, Houston, succeeded Dr. Milford O. Rouse, Dallas, in the presidency of the Association; Mrs. H. S. Renshaw, Fort Worth, took over the Woman's Auxiliary gavel from Mrs. Richard C. Bellamy, Liberty. Dr. Howard O. Smith, Marlin, was named President-Elect of the Association; Dr. David W. Carter, Jr., Dallas, Vice-President; Dr. Charles P. Hardwicke, Austin, Speaker of the House of Delegates (succeeding Dr. Hobart O. Deaton, Fort Worth, who asked to be relieved of this position after four years); and Dr. James D. Murphy, Fort Worth, Vice-Speaker (succeeding Dr. Hardwicke). Dr. R. W. Kimbro, Cleburne, was reelected to the Board of Trustees and to its chairmanship. Dr. J. T. Billups, Houston, completing his final term as a Councilor as permitted by the By-Laws, was succeeded in the chairmanship of the Board of Councilors by Dr. Franklin W. Yeager, Corpus Christi. New members of the Board of Councilors include Dr. Henrie Mast, Midland, Second District; Dr. Carlos E. Fuste, Alvin, Eighth District; Dr. Herbert H. Duke, Baytown, Ninth District; and Dr. Stephen B. Tucker, Nacogdoches, Tenth District.

Dr. G. W. Cleveland, Austin, was elected an alternate delegate to the American Medical Association to succeed Dr. J. C. Terrell, Stephenville, who continued as delegate designate. Members of the various councils whose terms of office expired with the 1957 session were reelected with the exception of Dr. May Owen, Fort Worth, who had served the full time authorized by the By-Laws and was succeeded by Dr. Herman C. Sehested, Fort Worth; Dr. L. Bonham Jones, San Antonio, already a member of the council, was appointed by the President to succeed Dr. Owen as chairman of the Council on Scientific Work.

Dr. Thomas Ford Bryan of Dublin was elected by the House as General Practitioner of the Year for Texas.

Indoctrination, Medicare, and Projects of Voluntary Health Groups

Indoctrination of members, medical care of military dependents, and relationships with other groups and professions seemed to create the greatest interest in the House of Delegates.

The state level program of indoctrination for new members adopted by the Association last year was reported to have been well received on the whole in its initial stages—72 attended the program given for the first time in Austin in January. The House voted to hold an indoctrination program in conjunction with each annual session in addition to those in Austin at the time of Executive Council meetings. Members transferring to a new county medical society will be expected to attend the state indoctrination course before becoming regular members unless they have attended such a course previously. Intern and resident members will be expected to go through an additional 24 months of provisional membership and the state level indoctrination course before becoming regular members.

The House agreed to extend until the time of the 1958 annual session the contract with the Department of Defense to participate in the Medicare program, at which time the program will be reevaluated. Col. Earl C. Lowrey, Washington, D. C., deputy director of Medicare for the Department of the Army, reported on the program and complimented the Committee on Medicare of the Texas Medical Association and Blue Shield for what they have done to administer the program effectively in this state. He emphasized that any individual physician may choose to take part in the program or not and to accept or refuse any individual patient under the program.

Discussion of health projects proposed by voluntary agencies before they are made public so that mutually agreeable arrangements involving physicians and their care of patients was recommended, and a committee will be available for this purpose. Attention was called to a previously adopted policy stating that poliomyelitis vaccine should be handled in the same manner and through the same channels as any other vaccine, that is, by commercial companies and in regular medical practice. Study was advocated of the whole problem of medical care by groups or institutions that might be encroaching on the private practice of medicine. Veterans Administration hospitals and their care of patients with non-service-connected disabilities were mentioned for particular consideration. The development of an interprofessional code to guide physicians and lawyers in their relationships to each other and to litigation involving medical questions was approved.

The General Practitioner of the Year for Texas, Dr. Thomas F. Bryan of Dublin, is pictured with Dr. A. Fletcher Clark, Jr. (left) and Dr. J. C. Terrell in the Association's Press Room.

Action on Scientific Matters

Several positive steps were taken by the House in scientific matters. Recently introduced safety features on automobiles, especially seat belts, were commended. A program to detect eye defects in school children was approved, as was a recommendation that immunization against poliomyelitis be suggested as a prerequisite to school attendance. A resolution proposing an amendment to national legislation that would prohibit the Food and Drug Administration from approving the addition to foods of agents known to be carcinogenic was referred to the Committee on Cancer for study and recommendation.

The consultation by Dr. Francis J. Gerty of Chicago into the mental health program of Texas, sponsored by the Texas Medical Association in recent months, was reviewed. The House approved the idea of a continuing committee to advise and plan with state agencies in the mental health field, perhaps with Dr. Gerty as consultant. In the tuberculosis area, the House looked with favor on cooperating with the Texas Tuberculosis Association and other interested groups in a recodification of state laws dealing with tuberculosis. It was noted that studies of maternal deaths in Texas carried on by the Association's Committee on Maternal Mortality show that hemorrhage and inadequate prenatal care are the two major causes of maternal death in the state. Considerable activity in the blood banking field was reported in detail, and the House approved the recommendation that physicians experienced in blood banking take the lead in national blood bank projects.

Indications are, the House was told, that physical examinations of foreign nationals entering the state under bracero contracts are inadequate, and it was agreed that the Department of Labor should be encouraged to insist on adequate examinations and, if necessary, quarantine of braceros at the border.

The Committee on Cardiovascular Diseases announced a grant from the Texas Heart Association to permit educational information on heart conditions to appear monthly in the *Journal*. The availability of speakers in this specialty also was noted.

The Committee on Public Health recommended that time be provided on county medical society programs for the presentation of information on public health problems and on the relationship of the public health officer and physicians in private practice.

The Committee on Aging called attention to the growing problem of geriatrics and recommended that efforts be directed toward eventual retirement on the basis of individual capabilities rather than on an automatic retirement by a certain age.

The House approved continued study leading toward the establishment of another state-supported medical school in Texas, to be located in San Antonio. Physicians also were encouraged to give greater support to the American Medical Education Foundation and directly to medical schools of their choice.

The need for continued education of the medical profession and of patients in the availability and most effective use of health insurance plans was emphasized.

Legislation

National legislation once more attracted attention. The House went on record in favor of the Bricker amendment, Jenkins-Keogh measures, repeal of the sixteenth amendment to the United States Constitution (income tax), and adoption of a twenty-third amendment to the Constitution to limit federal participation in business enterprises, and as opposed to federal aid to medical education.

Approval was given to a certifying board for ophthalmic technicians and to better recognition of medical technologists (MT-ASCP) as a professional group. The work of the Texas Commission on Patient Care to encourage young people to enter health careers was noted. The Commission anticipates broadening its base to include additional ancillary medical groups in its deliberations.

Organization

The organizational and procedural aspects of the Association received attention by the House of Delegates. Branches of county medical societies under certain circumstances were authorized. Standing committees on scientific exhibits, school-physician relationships, and rural health and doctor distribution were established by amending the By-Laws. Additional committees, including one on military medical affairs and another on nuclear medicine, were proposed. The name of the Association's scientific Section on Clinical Pathology was changed to the broader "Pathology." Intern, resident, and inactive members will no longer endorse applications for membership or serve as delegates. It was requested that steps be taken through committee study and recommendation to improve the procedures of the House of Delegates. Suggestions that the office of Vice-President of the Association be eliminated and that each of the scientific sections have a delegate in the House of Delegates involve changes in the Constitution and will not be acted on until next year.

Exhibits—both scientific and technical—were displayed throughout the annual session. The scientific exhibit in the foreground of the top picture was the first place winner of an award in the "special individual" division. The technical exhibits are being set up in the bottom picture.

The Board of Trustees reported the Association in sound financial condition, with *Journal* advertising and technical exhibits at the annual session bringing in more revenue than in previous years, and with the mortgage on the headquarters building being paid rapidly. However, it was pointed out that operating expenditures are about as large as they can be with present revenue; the current budget allows only a 2.5 per cent margin for emergencies. The Trustees also mentioned as major operating expenditures for the year: Memorial Library $31,000, annual session $25,000, office (including postage and telephone) $22,000, taxes $12,500, building operation and maintenance $10,500, and *Journal* $85,000 (of which $70,000 comes from advertising). A bequest of approximately $500,000 for loans to medical students and of $50,000 for the Memorial Library by the late Dr. Sam E. Thompson of Kerrville, and two trusts from anonymous donors to be used for medical projects chosen by the Trustees were acknowledged.

A report of a survey conducted by the California Medical Association on group disability insurance plans sponsored by state and large county medical societies indicated that the Texas Medical Association plans ranks high in flexibility and benefits.

The Executive Secretary noted that the Memorial Library has grown to more than 25,000 volumes with more than 2,400 reference requests being handled last year. He stated that editorial pages of the *Texas State Journal of Medicine* increased by 39 per cent last year. He noted that a larger number of physicians than before are using the physicians placement service and that a larger percentage of community vacancies are being filled. Printing and reproduction in the headquarters office increased 47 per cent over a year before—more than a million and a half pieces of literature were printed in 1956. Membership in the Association was 7,592 at the end of 1956, and a membership of 7,850 is anticipated before the end of this year.

Scientific Exhibit Awards

Awards for scientific exhibits at the session were given in three divisions. First place in the "individual" division was won by Drs. J. Walter Park, III, S. J. Greer, and Francis E. O'Neill of San Antonio for their exhibit on "Intrathoracic Vascular Anomalies Causing Tracheal Obstruction"; second place by Dr. Jasper H. Arnold, Houston, "Importance of Bacteriologic Methods in Diagnosis of Urin-

Top left, medical students register for the annual session. Top right, fraternity and alumni tickets are distributed near the registration desk. Center left, a special speaker gives a scientific presentation. Center right, an attentive audience at a scientific section meeting. Bottom left, the Fifty Year Club and guests. Bottom right, the Past Presidents Association and guests have luncheon.

ary Tract Infections"; and honorable mention by Drs. Dale J. Austin and Jesse E. Thompson, Dallas, "Surgical Management of Popliteal Aneurysms."

In the "special individual" division (exhibit by individuals but with special assistance from an institution or agency), first place went to Drs. Robert R. Shaw, Donald L. Paulson, and John L. Kee, Dallas, for "Bronchiogenic Carcinoma"; second to Drs. Francis M. Spencer, San Angelo, and Lee S. Monroe, La Jolla, Calif., "Color Photomicrographs in Teaching Recognition of the Intestinal Parasites"; and honorable mention to Drs. Charles L. and James A. Martin, Dallas, "Is Radium Still Needed for Cancer Therapy?"

"Institutional" exhibits winning citations were first, Scott and White Clinic, Temple, Drs. N. C. Hightower, A. C. Broders, Jr., R. D. Haines, A. W. Sommer, and J. F. McKenney, "Chronic Ulcerative Colitis—Diagnostic and Therapeutic Considerations"; second, Southwestern Medical School of the University of Texas, Department of Surgery, Dallas, Drs. Ernest Poulos and Ben Wilson, "Management of Vascular Injuries in a Civilian Hospital"; and honorable mention, Hermann Hospital, Houston, Drs. Henry Goodwin Glass, George W. Waldron, and Wilson G. Brown, "Cancer in Thyroid Diseases."

Future Sessions and Registration

Invitations from Travis County Medical Society and Tarrant County Medical Society were received for the Association to meet in Austin and Fort Worth, respectively, in 1960. A decision was referred to the Executive Council after study and recommendation by the Council on Scientific Work and the Board of Trustees. The 1958 session will be April 19-23 in Houston; the 1959 session, April 18-22 in San Antonio.

Registration at the Dallas meeting was broken down into the following groups: members 1,536, guests 33, visitors 305, exhibitors 316, Woman's Auxiliary members 612, total 2,802.

The President's Dinner Party followed by dancing and entertainment. Top left, some of the guests at the head table, Mrs. Richard C. Bellamy, Dr. Foy Moody, the Denton Kerrs (left to right). Top right, in the foreground, President Rouse chats with Philip Overton and Dr. J. B. Copeland, while couples dance in the background. Bottom left, Fran Warren sings to the music of Skinny Ennis. Bottom right, some guests enjoy the party.

General Meeting Luncheon guests see Dr. Milford O. Rouse present the first Anson Jones award to Blair Justice (right). At the table in the foreground, facing the camera, are (left to right) Mrs. Sam E. Thompson, Mrs. Hobart O. Deaton, and Mrs. Milford O. Rouse.

★ County Societies

NEW COUNTY SOCIETY OFFICERS

The following new officers of county medical societies have been reported to the Texas Medical Association. New officers are also listed in the February *Journal* on page 125 and in the April issue on page 295.

Anderson-Houston-Leon—President, Dr. C. O. Murray, Jr., Crockett; vice-president, Dr. R. H. Bell, Palestine; secretary-treasurer, Dr. O. B. Harrington, Palestine; delegate, Dr. R. H. Bell.

Angelina—President, Dr. Dan Spivey; vice-president, Dr. Benard Hyman; secretary-treasurer, Dr. Anna Beth Connell, all of Lufkin.

Armstrong-Donley-Childress-Collingsworth-Hall-Wheeler—President, Dr. Charles B. Jones, Wellington; vice-president, Dr. Carter Holcomb, Wellington; secretary, Dr. Dave V. Watkins, Wellington; delegate, Dr. James A. Odom, Memphis.

Atascosa—President, Dr. U. B. Ogden, Pleasanton; vice-president and secretary-treasurer, Dr. John D. Austin, Pleasanton; delegate, Dr. Walter H. Joyce, Lytle.

Austin-Waller—President, Dr. Robert A. Neely, Bellville; vice-president, Dr. Winston B. Neely, Bellville; secretary-treasurer, Dr. Dallas Miles, Waller; delegate, Dr. S. C. Walker, Hempstead.

Bastrop-Lee—President, Dr. Tom E. Linstrum, Elgin; vice-president, Dr. Sidney H. Richardson, Smithville; secretary-treasurer, Dr. Alford R. Hazzard, Giddings; delegate, Dr. Sterling M. Hardt, Bastrop.

Baylor-Knox-Haskell—President, Dr. Joseph A. Massa, Seymour; vice-president, Dr. Temple W. Williams, Haskell; secretary-treasurer, Dr. Charles G. Markward, Knox City; delegate, Dr. Thomas S. Edwards, Knox City.

Bee-Live Oak-McMullen—President, Dr. James L. Reagan, Beeville; vice-president, Dr. Ernest E. Miller, Beeville; secretary-treasurer, Dr. Howard E. Lancaster, Beeville; delegate, Dr. Tom B. Reagan, Beeville.

Bell—President, Dr. John F. McKenney, Jr., Temple; president-elect, Dr. John J. Christian, Temple; vice-president, Dr. John W. Padgett, Killeen; secretary-treasurer, Dr. John J. Christian; delegates, Dr. G. V. Brindley, Jr., Temple; Dr. Robert A. Murray, Temple.

Bexar—President, Dr. J. B. Copeland; president-elect, Dr. Charles W. Tennison; vice-president, Dr. Daniel D. Altgelt; secretary, Dr. Edwin M. Sykes, Jr.; treasurer, Dr. Ruskin C. Norman; delegates, Dr. Carl E. Bosshardt, Dr. A. Fletcher Clark, Jr., Dr. L. Bonham Jones, Dr. J. M. Partain, Dr. John C. Parsons, Dr. Jack B. Lee, all of San Antonio.

Bowie—President, Dr. Max Baldridge, Texarkana; president-elect, Dr. Charles V. Bintliff, Texarkana; vice-president, Dr. W. S. Tyson, Jr., New Boston; secretary-treasurer, Dr. John G. Calhoun, Jr., Texarkana; delegate, Dr. Charles A. Smith, Texarkana.

Brazos-Robertson—President, Dr. Nena A. Harris, College Station; president-elect, Dr. J. G. Sanders, Bremond; vice-president, Dr. L. B. Hughes, Hearne; secretary-treasurer, Dr. Joseph C. Gallagher, Hearne; delegate, Dr. W. C. Taylor, Jr., Calvert.

Brooks-Duval-Jim Wells—President, Dr. J. Harold Williams, Alice; vice-president, Dr. Glenn T. Howard, Alice; secretary-treasurer, Dr. Richard O. Albert, Alice; delegate, Dr. Glenn T. Howard, Alice.

Camp-Morris-Titus—President, Dr. Lowell E. Rutledge, Daingerfield; vice-president, Dr. Robert L. Hardman, Mt. Pleasant; secretary-treasurer, Dr. James S. Leeves, Naples; delegate, Dr. Robert L. Johnson, Pittsburg.

Cass-Marion—President, Dr. Andrew J. Woods, Jefferson; vice-president, Dr. William S. Terry, Jefferson; secretary-treasurer, Dr. Jesse M. De Ware, III, Jefferson; delegate, Dr. Joe N. Nichols, Atlanta.

Clay-Montague-Wise—President, Dr. Ben C. Merritt, Jr., Decatur; vice-president, Dr. James T. Darwin, Decatur; secretary, Dr. John H. Valcik, Decatur; delegate, Dr. John E. Latham, Jr., Bridgeport.

Comal—President, Dr. Jack A. Bergfeld; vice-president, Dr. William W. Sullivan; secretary-treasurer, Dr. Stanley M. Woodward; delegate, Dr. Arthur Bergfeld, all of New Braunfels.

Crane-Upton-Reagan—President, Dr. J. L. Wright, Jr., Big Lake; vice-president, Dr. James D. Gossett, Rankin; secretary-treasurer, Dr. John E. Terry, Crane; delegate, Dr. J. L. Wright, Jr.

Ellis—President, Dr. James B. Silman, Waxahachie; vice-president, Dr. John M. Montgomery, Milford; secretary-treasurer, Dr. John G. Compton, Jr., Waxahachie; delegate, Dr. Herbert Donnell, Waxahachie.

El Paso—President, Dr. Robert F. Thompson; president-elect, Dr. Gerald H. Jordan; vice-president, Dr. Branch Craige; secretary, Dr. Morton H. Leonard; secretary-elect, Dr. Donald H. Ewalt; treasurer, Dr. C. M. Stanfill; delegates, Dr. Merle D. Thomas, Dr. Russell L. Deter, Dr. Ralph S. Clayton, all of El Paso.

Grayson—President, Dr. Emmett Essin, Jr., Sherman; vice-president, Dr. John Gleckler, Denison; secretary-treasurer, Dr. Maurice A. Weisberg, Denison; delegate, Dr. G. S. Rowlett, Jr., Sherman.

Grimes—President, Dr. C. Marius Hansen; president-elect, Dr. E. T. Ketchum; vice-president, Dr. William S. Conkling; secretary-treasurer, Dr. H. L. Stewart; delegate, Dr. S. D. Coleman, all of Navasota.

Hale-Floyd-Briscoe—President, Dr. Gene A. McClelland, Lockney; vice-president, Dr. Russell K. Williams, Plainview; secretary-treasurer, Dr. Jeff H. Davis, Plainview.

Hardeman-Cottle-Foard-Motley—President, Dr. Walter A. Brooks, Quanah; vice-president, Dr. Raymond E. Sitta, Chillicothe; secretary-treasurer, Dr. John M. Taylor, Quanah; delegate, Dr. Albert C. Traweek, Sr., Matador.

Hardin-Tyler—President, Dr. Eugenia T. Guantt, Kountze; vice-president, Dr. John J. Gilchrist, Woodville; secretary, Dr. George D. Tennison, Silsbee; delegate, Dr. Wallace J. Poshataske, Silsbee.

Harrison—President, Dr. Phillip L. Crayton; vice-president, Dr. George E. Bennett; secretary-treasurer, Dr. James H. Harris; delegate, Dr. Richard G. Granbery, all of Marshall.

Hays-Blanco—President, Dr. T. Charles McCormick, Jr., Buda; vice-president, Dr. William L. Moore, Jr., San Marcos; secretary-treasurer, Dr. M. D. Heatly, San Marcos; delegate, Dr. William L. Moore, Jr.

Henderson—President, Dr. Lonnie L. Cockerell; vice-president, Dr. John W. Gibson; secretary-treasurer, Dr. Norris E. Holt; delegate, Dr. Lonnie L. Cockerell, all of Athens.

Hidalgo-Starr—President, Dr. Sheridan S. Evans, McAllen; president-elect, Dr. Wallace H. Shamburger, Jr., San Juan; vice-president, Dr. Hilburn D. Gilliam, McAllen; secretary-treasurer, Dr. Pruitt D. Terrell, McAllen; delegate, Dr. Marion R. Lawler, Mercedes.

Hopkins-Franklin—President, Dr. Joseph B. Longino; president-elect, Dr. Lester A. Hodges; vice-president, Dr. Joseph B. Longino; secretary-treasurer, Dr. Omer F. Kirkpatrick; delegate, Dr. Earl Stirling, all of Sulphur Springs.

Howard-Martin-Glasscock—President, Dr. Broadway Broadrick; vice-president, Dr. T. J. Williamson; secretary-treasurer, Dr. Louise B. Worthy; delegate, Dr. John E. Hogan, all of Big Spring.

Johnson—President, Dr. Olin T. Smyth, Jr.; vice-president, Dr. Glenn R. Wright; secretary-treasurer, Dr. W. R. Whitehouse; delegate, Dr. Tolbert F. Yater, all of Cleburne.

Karnes-Wilson—President, Dr. Jerry W. Oxford, Floresville; vice-president, Dr. S. R. Boykin, Floresville; secretary-treasurer, Dr. Shelby E. Shannon, Karnes City; delegate, Dr. Jerry W. Oxford.

Kaufman—President, Dr. D. T. Friddell, Terrell; vice-president, Dr. William DeVlaming, Kaufman; secretary-treasurer, Dr. Harry M. Ricketts, Terrell; delegate, Dr. G. H. Alexander, Terrell.

Kimble-Mason-Menard-McCulloch—President, Dr. Albert M. McCulloh, Brady; vice-president, Dr. James S. Anderson, Brady; secretary-treasurer, Dr. Joel H. Johnson, Mason; delegate, Dr. D. W. Jordan, Brady.

Kleberg-Kenedy—President, Dr. Collier M. Sublett; vice-president, Dr. William A. Ewert; secretary-treasurer and delegate, Dr. Charles B. Lambeth; all of Kingsville.

Lamb-Bailey-Hockley-Cochran—President, Dr. Dale P. Campbell, Levelland; vice-president, Dr. Dan M. Brown, Morton; secretary-treasurer, Dr. Raymond A. Reid, Levelland; delegate, Dr. William C. Nowlin, Littlefield.

Lampasas-Burnet-Llano—President, Dr. Garland L. Dansby, Llano; vice-president, Dr. Dan J. Hoerster, Llano; secretary-treasurer, Dr. Peggy J. Newman, Burnet; delegate, Dr. Ray L. Sheppard, Burnet.

Lavaca—President, Dr. George A. Spikes; vice-president, Dr. Herbert G. Liberty; secretary-treasurer, Dr. William H. Yates; delegate, Dr. George A. Spikes, all of Hallettsville.

Limestone—President, Dr. Charles H. Brewster, Mexia; president-elect, Dr. David T. Wells, Mexia; secretary, Dr. Stanley Cox, Groesbeck.

Medina-Uvalde-Maverick-Val Verde-Terrell-Edwards-Real-Kinney-Zavala—President, Dr. B. Oliver Lewis, Eagle Pass; vice-president, Dr. George M. Allison, Uvalde; secretary-treasurer, Dr. T. B. Samsel, Jr., Crystal City; delegate, Dr. Dean P. Dimmitt, Uvalde.

Milam—President, Dr. Elmer O. Smith, Jr., Cameron; vice-president, Dr. Thomas S. Barkley, Rockdale; secretary-treasurer, Dr. Manuel O. Slaughter, Rockdale; delegate, Dr. Clifford G. Swift, Cameron.

Navarro—President, Dr. Robert L. Campbell, Corsicana; vice-president, Dr. Ben H. Griffin, Frost; secretary-treasurer, Dr. Bernard Rosen, Corsicana; delegate, Dr. Paul H. Mitchell, Corsicana.

Nolan-Fisher-Mitchell—President, Dr. Lawrence H. Rudd, Colorado City; vice-president, Dr. Sam A. Loeb, Sweetwater; secretary-treasurer, Dr. John H. Chinn, Colorado City; delegate, Dr. Tom D. Young, Sweetwater.

Nueces—President, Dr. J. L. Barnard; president-elect, Dr. H. E. Griffin; vice-president, Dr. A. L. Lane; secretary, Dr. John Lingenfelder; treasurer, Dr. Haddon B. Woods, all of Corpus Christi.

Palo Pinto-Parker-Young-Jack-Archer—President, Dr. Carl H. Whalen, Weatherford; vice-president, Dr. William G. Mask, Jacksboro; secretary-treasurer, Dr. William B. Allensworth, Mineral Wells; delegate, Dr. H. E. Griffin, Graham.

Potter—President, Dr. J. Ralph Lemmon; president-elect, Dr. Capres S. Hatchett; vice-president, Dr. H. Fred Johnson; secretary-treasurer, Dr. John R. Archer; delegates, Dr. E. A. Rowley, Dr. William Klingensmith, all of Amarillo.

Randall-Deaf Smith-Parmer-Castro-Oldham-Swisher—President, Dr. Leta N. Boswell, Canyon; vice-president, Dr. Lewis B. Barnett, Hereford; secretary-treasurer, Dr. G. Dudley Moore, Jr., Canyon; delegate, Dr. R. E. Cogswell, Dimmitt.

Runnels—President, Dr. John E. Green, Jr., Ballinger; vice-president, Dr. Lloyd L. Downing, Ballinger; secretary-treasurer, Dr. Henry H. McCreight, Winters; delegate, Dr. Charles F. Bailey, Ballinger.

Rusk—President, Dr. Harold S. Kennamer, Overton; president-elect, Dr. Lynn Hilbun, Henderson; vice-president, Dr. James H. Mann, Henderson; secretary-treasurer, Dr. Chester L. McShan, Henderson; delegate, Dr. Lloyd Deason, Henderson.

San Patricio-Aransas-Refugio—President, Dr. Melross C. Rittiman, Sinton; president-elect, Dr. Dan R. Baen, Mathis; secretary-treasurer, Dr. F. S. Ewing, Sinton; delegate, Dr. Claude A. Selby, Sinton.

Smith—President, Dr. James P. Mullowney; president-elect, Dr. C. B. Young; vice-president, Dr. J. W. Birdwell; secretary-treasurer, Dr. Frank Green; delegate, Dr. Madison Lee, Jr., all of Tyler.

Tarrant—President, Dr. J. A. Hallmark; president-elect, Dr. William E. Flood; vice-president, Dr. Warren W. Moorman; secretary-treasurer, Dr. Emory Davenport; delegates, Dr. Thomas L. Shields, Dr. Mal Rumph, Dr. James D. Murphy, Dr. E. P. Hall, Jr., Dr. Drue O. D. Ware, all of Fort Worth.

Van Zandt—President, Dr. W. J. Garrett, Van; vice-president, Dr. H. A. Baker, Wills Point; secretary-treasurer, Dr. R. M. Golladay, Wills Point; delegate, Dr. H. A. Baker, Wills Point.

Victoria-Calhoun-Goliad—President, Dr. Rufus A. Stevenson; vice-president, Dr. C. U. Bickford; secretary-treasurer, Dr. Curtis B. Pillsbury; delegate, Dr. Joseph V. Hopkins, all of Victoria.

Wichita—President, Dr. William L. Rosenblatt; president-elect and vice-president, Dr. Richard L. Nelson; secretary-treasurer; Dr. Frank S. Browne; delegates, Dr. J. D. Hall, Dr. R. L. Daily, all of Wichita Falls.

Williamson—President, Dr. Roy H. Kirkpatrick, Taylor; vice-president, Dr. C. J. Daniel, Taylor; secretary-treasurer; Dr. H. R. Gaddy, Jr., Georgetown; delegate, Dr. A. J. Rice, Georgetown.

Wood—President, Dr. James W. Williams, Mineola; secretary-treasurer, Dr. Roscoe O. Moore, Mineola; delegate, Dr. Virgil E. Robbins, Quitman.

★ District Societies

Second District Society

Election of officers, a scientific program attended by 40 doctors, and a large banquet and dance were features of the annual meeting of the Second District Medical Society, held in Big Spring March 30.

Dr. J. Vernon McKay, Lamesa, was elected president; Dr. A. H. Daniell, Brownfield, vice-president; and Dr. Noble L. Rumbo, O'Donnell, secretary-treasurer. Dr. Henrie E. Mast, Midland, was nominated as candidate for councilor, to succeed Dr. R. B. G. Cowper, Big Spring, who has served three terms.

The scientific program included: "The Cancer Operation—General Considerations" by Dr. John V. Goode, Dallas surgeon and president of Southwestern Surgical Society; "Medical Care of Inoperable Malignancies" by Dr. Arthur Grollman, professor of internal medicine, Southwestern Medical School, Dallas; "Pitfalls of General Surgery" by Dr. Goode; and "The Hypothyroid Patient" by Dr. Carey G. King, Jr., Dallas internist.

Dr. Clyde E. Thomas, Jr., Big Spring, outgoing president, presided. Mrs. Harold Lindley of Pecos, first vice-president of the Texas Medical Association Woman's Auxiliary, was auxiliary speaker for the occasion.

Third District Society

Dr. William Klingensmith, Amarillo surgeon, was elected president of the Third District Medical Society when that group held its annual meeting in Lubbock March 30. Other officers elected were Dr. Robert Mitchell of Plainview,

president-elect; Dr. Paul Spring of Friona, first vice-president; Dr. Charles Jones of Wellington, second vice-president; and Dr. H. Fred Johnson of Amarillo, secretary-treasurer.

Host group was the Lubbock-Crosby Counties Medical Society. Dr. Milford O. Rouse of Dallas, Texas Medical Association President, was special guest, and Dr. Albert Barsh of Lubbock, outgoing district president, was program chairman.

The program included the following:

Symposium on Backache—D. Stuart Wolf, Oklahoma City, moderator; Dr. Jack Dunn, Jr., Rochester; Dr. Louis J. Levy, Fort Worth; Dr. Harrell C. Dodson, Oklahoma City.

Symposium on Eye, Ear, Nose, and Throat and Pediatrics—Dr. George M. Waddill, Jr., Amarillo, moderator; Dr. Alvis F. Johnson, Dallas; Dr. Oliver W. Suehs, Austin; Dr. Everett R. Veirs, Temple.

Luncheon talk, "A Look at Texas Medicine Today"—Dr. Milford O. Rouse, Dallas, President of the Texas Medical Association.

SURGICAL SECTION

Dr. Warren B. Poole, Lubbock, Chairman

Principles of Colon and Rectal Surgery—Dr. Harrell C. Dodson, Jr., Oklahoma City.

Diagnosis and Treatment of Common Ankle Injuries—Dr. Louis J. Levy, Fort Worth.

Breast Cancer—Dr. Harrell C. Dodson, Jr., Oklahoma City.

Diagnosis and Treatment of Common Wrist Injuries—Dr. Louis J. Levy, Fort Worth.

MEDICAL SECTION

Dr. Robert H. Mitchell, Plainview, Chairman

Recent Developments in Muscular Dystrophy and Related Myopathies —Dr. Stuart Wolf, Oklahoma City.

Management of the Patient with Congenital Heart Disease—Dr. Alvis F. Johnson, Dallas.

The Relation of Life Stress to Coronary Artery Disease—Dr. Stuart Wolf, Oklahoma City.

The Care of the Premature Infant—Dr. Alvis F. Johnson, Dallas.

EYE, EAR, NOSE AND THROAT SECTION

Dr. Grady M. Wallace, Lubbock, Chairman

Nasolacrimal Surgery—Dr. Everett R. Veirs, Temple.

Secretory Otitis Media: Etiology, Diagnosis and Management—Dr. Oliver W. Suehs, Austin.

Hypotony Following Intraocular Surgery—Dr. Everett R. Veirs, Temple.

OBSTETRICS AND GYNECOLOGY SECTION

Dr. Charles Nash, Lubbock, Chairman

Menstrual Dysfunctions and Amenorrhea — Dr. Willard R. Cooke, Galveston.

Newer Aspects in Sterility—Dr. William F. Guerriero, Dallas.

Defeminizing Conditions and Hirsutism—Dr. Willard R. Cooke, Galveston.

Summary of Recent Developments in Diagnosis and Management of Cancer of the Cervix, Uterus, and Ovary—Dr. William F. Guerriero, Dallas.

A breakfast for county medical society officers, dinner and entertainment, and exhibits rounded out the program. Mrs. Ben B. Hutchinson, Lubbock, was chairman of a program for members of the Woman's Auxiliary.

Amarillo will be host to the society next spring.

Tenth District Society

Dr. Denton Kerr, then President-Elect of the Texas Medical Association, was chief speaker, and Dr. Stephen B. Tucker of Nacogdoches was nominated for Tenth District Councilor, when the Tenth District Medical Society held its spring meeting March 2 in Orange.

Scientific papers presented included: "Pediatric Urology" by Dr. Kenneth Arnett, Lufkin; "Pediatric Cardiology" by Dr. Dan McNamara, Houston; and "Refrigeration Treatment of Burns" by Dr. L. W. Crossman, Baytown. Dr. C. W. Castle, Liberty, president, presided.

Forty-two members attended the session, during which plans were made for a meeting in Port Arthur in October.

Thirteenth District Society

Dr. J. B. Cummins, Fort Worth, was presented with an honorary membership in the Southern Medical Association during the annual meeting of the Thirteenth District Society held in Fort Worth March 13.

New officers elected were Dr. Roy Wilson, Seymour, president; Dr. W. R. Sibley, Abilene, vice-president; and Dr. Robert D. Moreton, Fort Worth, secretary-treasurer for another term.

A total of 125 doctors attended the session, held in conjunction with the spring seminar of the Tarrant County Academy of General Practice. The latter group presented the scientific program, which was furnished by the postgraduate department of the University of Texas Southwestern Medical School, Dallas.

Speakers and topics included: "Acidosis and Alkalosis" by Dr. James Y. Bradfield, "Stupor and Coma" by Dr. Jabez Galt, "Emergencies in the Management of Cardiovascular Disease" by Dr. Carleton B. Chapman, "Emergencies Arising in the Gastrointestinal System" by Dr. Lawrence B. Sheldon, Dallas; and "Emergencies Arising from Hypersensitive States" by Dr. Albert M. Tocker.

Also on the program were Dr. J. A. Hallmark, president of the Tarrant County Medical Society; Dr. R. L. Nelson, Wichita Falls; Dr. H. O. Deaton, Fort Worth; Dr. Travis Smith, Abilene; Dr. M. O. Rouse, Dallas; Dr. R. W. Kimbro, Cleburne; Dr. John R. Richards, president of the Tarrant County Academy of General Practice; and Dr. Alice Gambill, Fort Worth. Dr. W. P. Higgins Jr., newly appointed vice-councilor, was introduced.

Abilene was chosen as the 1958 meeting place of the group.

WOMAN'S AUXILIARY

National Auxiliary to Meet Next Month

The Woman's Auxiliary to the American Medical Association has planned its annual convention for the Hotel Roosevelt, New York, June 3-7, simultaneous with the AMA meeting. Giving a report on the Woman's Auxiliary to the Texas Medical Association will be Mrs. H. S. Renshaw, Fort Worth, new President. Mrs. John D. Gleckler, Denison, President-Elect of the Texas Auxiliary, will serve as dean of the Texas delegation.

Registration will be open Sunday, June 2, through Thursday. Round-table discussions will be held Monday and Wednesday afternoons; general meetings will be held Tuesday, Wednesday, and Thursday mornings; a board of directors' meeting is scheduled for Thursday afternoon; and a post-convention workshop for state presidents, presidents-elect, and national committee chairmen will be held Friday.

Social events include a tea honoring the President and President-Elect Monday; a luncheon honoring national past presidents Tuesday, with Dr. Howard Rusk, director of the Institute of Physical Medicine and Rehabilitation at the New York University–Bellevue Medical Center, as speaker; a luncheon Wednesday honoring the President and President-Elect with Dr. Dwight H. Murray, President of the AMA, as speaker; and the annual dinner for Auxiliary members, husbands, and guests Thursday with Professor Allen Richard Foley of Dartmouth College as speaker.

MRS. HORACE STEPHEN RENSHAW BECOMES AUXILIARY PRESIDENT

Mrs. Horace Stephen Renshaw is the fortieth President of the Woman's Auxiliary to the Texas Medical Association, serving for the year 1957-1958.

In planning her year of presidency Mrs. Renshaw thought carefully to find a fitting slogan to stress. "Zest and Awareness" were the result. These words span the alphabet from A to Z in reverse. Her scope of activities in the Auxiliary is this inclusive. She has been a devoted member of this organization, and because her previous Auxiliary interests have been varied and outstanding, she is well known in Fort Worth, in the Thirteenth District, and throughout Texas. By attending several meetings at the American Medical Association headquarters in Chicago she understands that organization's aims and endeavors in protecting the health of this nation.

Perhaps Mrs. Renshaw is best known in executive offices because of her thorough knowledge of parliamentary procedure. She has been the author and the consultant on constitutional revisions for various organizations.

Carol Jim Renshaw has a biography rich in cultural, civic, and social activities. Her parents, Mr. and Mrs. Charles H. Roberts, gave to her an innate cultural background. Professor Roberts was the head of the History Department of Texas Christian University, and her mother was also on the teaching staff. In their home one felt that the fine things in life were stressed along with its practical aspects. Tradition became ingrained in our leader.

Mrs. Renshaw was born in Oklahoma but came to Texas at the age of 5 and was graduated from the public schools of Fort Worth. She got her bachelor of arts degree from Texas Christian University and her master of arts degree from the University of Michigan, her major subjects being history and English. After graduation, Mrs. Renshaw taught English in Paschal High School in Fort Worth and later was on the faculty of the English Department of Texas Christian University.

Her parents were interested in all broadening experiences for their daughter and included travel in her education. Her mother accompanied her to Europe, and a trip to South America had been planned with her father when he became ill and passed away. Since their marriage, Dr. and Mrs. Renshaw have traveled extensively over the North American continent.

Mrs. Renshaw has felt keenly the responsibility of a citizen. She has served in many capacities in the local, state, and national political scene; has been a member of the school board of Fort Worth, serving for several terms as the secretary; and has served in all the Parent-Teacher Associations of the schools with which she has been associated, being president of several.

As to social clubs, Mrs. Renshaw has been a member and an officer in the Woman's Club of Fort Worth, Sorosis Club, Round Table, and Dinner Dance Club. She has kept her close ties with Texas Christian University. Her church affiliation is with the University Christian Church, where she is very active.

These things speak of the public life of our leader, but by her family and her friends she is best loved. She and Dr. Renshaw were married in 1934 and have lived in Fort Worth ever since, except while Dr. Renshaw served the Army with distinction in World War II as orthopedic surgeon in William Beaumont Hospital in El Paso and McCloskey Hospital in Temple. They are the parents of two sons. Charles will be graduated this June in premedical studies summa cum laude from TCU and was early accepted for Johns Hopkins Medical School next fall. His plans also include a wedding in June to Miss Sally Tull of Amarillo. Their second son, James Stephen or "Speedy," is still in high school.

Mrs. H. S. Renshaw

To this family friendship is of paramount importance. They are known for their gracious hospitality, their dependable loyalty, and their desire to be of service. Mrs. Renshaw's personality glows with a warm friendliness that gives her a happy, secure outlook on life.

The fortieth President of the Woman's Auxiliary to the Texas Medical Association brings a leadership with fine principles on which to build its service. We can depend on thoroughness, fitness with keen insight, discipline, respect for tradition along with a modern concept and approach in this progressive time. The wheel of fortune will turn with a master at the helm, we may be assured. We can say with the wise men of old about Mrs. Horace S. Renshaw the following:

"Strength and honor are her clothing . . .
Her own works praise her in the gates."

—MRS. A. B. PUMPHREY, Fort Worth.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

State Convention Report in June Issue

RECENT DEATHS

DR. J. R. SYPERT

Dr. Jefferson Reed Sypert, Dallas physician who received a special certificate for 50 years' service to his profession from the University of Texas Medical Branch in 1953, died at his home March 24, 1957, of a cerebrovascular accident.

Dr. Sypert was born at Rogers in Bell County on January 21, 1875, son of William Rufus and Etna (Reed) Sypert. He attended Texas Christian University, then the old Add-Ran College in Waco, where he was captain of the first school football team; his medical degree was received from the University of Texas Medical Branch in Galveston in 1903. He interned at St. Joseph's Infirmary in Houston and took his residency at Santa Fe Hospital in Temple, after which he practiced in Holland, Texas, for 15 years. From 1918 until June, 1956, he was a general practitioner in Dallas.

For the past six years associated with the Southwest Clinic Association, Dr. Sypert was an honorary member of the Dallas County Medical Society, the Texas Medical Association, and the American Medical Association. He had belonged to

DR. J. R. SYPERT

Bell County Medical Society when practicing in Holland.

He was a charter member of the Oak Cliff YMCA and a member of its board of directors for 20 years, as well as serving as an elder of the Oak Cliff Christian Church for 30 years.

Dr. Sypert and Miss Laura Mewhinney were married in Holland on December 14, 1904.

He is survived by his wife; two daughters, Mrs. Robert Holland, Sr. and Mrs. Newsome Gay, both of Dallas; two sisters, Mrs. Etna Thompson of Dallas and Mrs. Robert Reed of Toledo, Ohio; two grandchildren; and four great-grandchildren.

DR. WILLIAM S. WEBB

Dr. William S. Webb, Fort Worth, died of acute myocarditis and pneumonitis March 21, 1957, in a local hospital.

Dr. Webb, the son of Dr. and Mrs. E. M. Webb, was born September 6, 1895, in Chillicothe and received his early education there. He attended Texas Christian University, Fort Worth, and his medical education was obtained at Vanderbilt University, Nashville, where he was graduated in 1921. He interned at St. Joseph Hospital in Fort Worth and at Charity Hospital in New Orleans. In New Orleans he specialized in eye, ear, nose, and throat. Subsequently he was certified by the American Board of Otolaryngology.

In 1934, Dr. Webb went to Shikarpur, Sind, India, on the Baluchistan frontier, where he specialized in cataract surgery with Dr. Henry T. Holland of Quetta, Baluchistan, at the Seth Hilarand Hospital. From there he went to the Mathra Das (Moga) Hospital at Moga-Tasil, Punjab, India, where he was associated with Dr. Mathra Das, famous Indian eye surgeon. En route home he visited and operated in the

DR. WILLIAM S. WEBB

following eye clinics of Europe: Fuch's of Vienna, Austria; Anton Elschnig's, Prague, Czechoslovakia; von Lint's, Brussels, Belgium; and Barraquer's, Barcelona, Spain. Returning home in May, 1935, he resumed his practice in Fort Worth, where he was active until his death.

Dr. Webb was a member of the Tarrant County Medical Society, Texas Medical Association, American Medical Association, Southern Medical Association, and Fort Worth Academy of Medicine and a fellow of the American College of Surgeons. Certified by the American Board of Otolaryngology, Dr. Webb was a member of the Fort Worth Eye, Ear, Nose, and Throat Society, Texas Society of Ophthalmology and Otolaryngology, and American Laryngological, Rhinological, and Otological Society.

Surviving Dr. Webb are his wife, the former Miss Olive Martin; their daughter, Mrs. Helen Webb Wightman, New Orleans; his mother of Chillicothe; and a granddaughter. His son lost his life in a boating accident exactly nine years prior to the date of Dr. Webb's death.

DR. FRANK A. SOMER

Dr. Frank Alois Somer, Ennis, Texas, died March 4, 1957, in a Houston hospital.

The son of Alois and Anna (Podany) Somer, Dr. Somer was born March 8, 1895, in Austria. He attended the University of Texas, Austin, and was graduated in medicine from Loyola University Medical School, Chicago, in 1926. After serving an internship at St. Bernard Hospital, Chicago, he did general practice there until 1930, when he moved to East Bernard, Texas. In 1937 he did postgraduate work at Washington University, St. Louis, and then took a residency at Grasslands Hospital, Valhalla, N. Y., returning to Texas in 1939 to practice in the specialty of eye, ear, nose, and throat, first in Cameron, and since 1949 in Ennis.

A member of the Ellis County Medical Society, Texas Medical Association, and American Medical Association,

DR. FRANK A. SOMER

Dr. Somer also belonged to the Dallas Academy of Ophthalmology and Otolaryngology and Theta Kappa Psi medical fraternity. He was a member of the Catholic Church. During World War I, Dr. Somer saw service with the United States infantry.

Dr. Somer is survived by his wife, the former Miss Lydia Clara Janak of Weimar, whom he married June 18, 1933, in Luling; a son, Frank Lynn Somer, both of Ennis; and one brother, Joe F. Somer of East Bernard.

DR. J. EDWARD HODGES

Dr. James Edward Hodges, pioneer general physician-gynecologist of Houston, died at his home in that city on March 11, 1957, of chronic myocardial degeneration.

Born March 14, 1875, in Georgetown, Dr. Hodges was the son of John Henry and Cornelia Caroline (Carothers) Hodges. He received a bachelor of science degree from Southwestern University in Georgetown in 1897, and then was awarded medical degrees from both the University of Texas and the University of Pennsylvania. He was house surgeon and consulting surgeon at the former Houston Infirmary Sanitarium from 1898 to 1901, opening his office for private practice in the old Binz Building, Houston's first skyscraper, in 1901, year of the Spindletop oil boom.

One of the founders and first secretary of the Harris County Medical Society, Dr. Hodges was one of the two remaining charter members at the time of his death, three days before his eighty-second birthday. He had belonged to the Texas and American Medical Associations throughout his career, being elected last year to honorary membership in the state group. He was an organizer and member of the staff of St. Joseph's Hospital and Jefferson Davis Hospital and a founder of the Houston Academy of Medicine and of the Harris County Chapter of the American Red Cross.

He was gynecologist, secretary, chief of staff, and on the surgical staff of St. Joseph's Infirmary; lecturer at St. Joseph's training school for nurses; member of Methodist, St. Elizabeth's, and Memorial Hospitals staffs; honorary professor of gynecology, Baylor University College of Medicine; member of the Houston District Medical Advisory Board for the United States; a one-time nominee for "General Practitioner of the Year"; member of the Harris County Selective Service Board during World War II; and author of a number of scientific papers.

Listed in "Who's Important in Medicine," Dr. Hodges held professional and honorary memberships in John Ashurst Junior Surgical Society of the University of Pennsylvania; Phi Alpha Sigma and Phi Rho Sigma medical fraternities; and Allegro. He was a member of the Postgraduate Medical Assembly of South Texas.

DR. J. EDWARD HODGES

Dr. Hodges, who delivered more than 2,000 babies in his lifetime, attended hundreds without compensation. Besides rearing and educating his own children and stepchildren, he befriended 18 other youngsters by clothing, feeding them, and paying for their education. For 33 years, he cared for the students and sisters of the Convent of the Good Shepherd without charging for his services.

A member of St. Paul's Methodist Church, Dr. Hodges was once its youngest steward and lived to be its oldest. A baptismal font at the church commemorates three of his sons who died in infancy.

The physician was married first to Miss Mary Agnes Coghlan, who died in 1931. He later married Mrs. Lannie Russell Withers.

Surviving Dr. Hodges are his wife; three children, J. Edward Hodges, Jr. of Hitchcock, Mrs. S. L. Hamilton of

Houston, and Mrs. Ida Sue Bottenfield of Austin; three stepchildren, Dr. Henry W. Withers, Mrs. John W. Mecom, and Mrs. Earl T. Mackey, all of Houston; two brothers, H. A. and Marvin C. Hodges, both of Georgetown; and 19 grandchildren.

DR. ALLAN C. SHIELDS

Dr. Allan Clark Shields, Victoria, Texas, died of a heart attack March 6, 1957, in Victoria.

Dr. Shields was born on October 14, 1901, in Victoria, the son of Frederick B. and Mary (Clark) Shields. After attending Victoria schools, he went to Texas Agricultural and Mechanical College from 1917 to 1918 and to the University of Texas from 1919 to 1921, and received his medical degree from the University of Texas Medical Branch in Galveston in May, 1925. He interned at St. Mary's Hospital in Galveston, and did postgraduate work at New York University and Bell Medical College, Babies Hospital in New York, Lahey Clinic in Boston, New York Medical Center, and Mayo Clinic in Rochester.

Owner of Victoria Hospital, Dr. Shields became a fellow of the American College of Surgeons in 1940. He was a member of the Victoria-Calhoun-Goliad Counties Medical Society (which he had served as secretary), Texas Medical Association, American Medical Association, American Academy of General Practice, and Southwestern Surgical Congress.

Dr. Shields was a lifetime Rotary member in Victoria; an elder of the First Presbyterian Church there; and past president of the Victoria School Board and Victoria Country Club. A Victoria elementary school was named for Dr. Shields and his father in 1952.

DR. ALLAN C. SHIELDS

He became the husband of Miss Avis Shell in a Galveston ceremony read on May 16, 1927. She has been active in the Woman's Auxiliary to the Texas Medical Association and currently is public relations chairman.

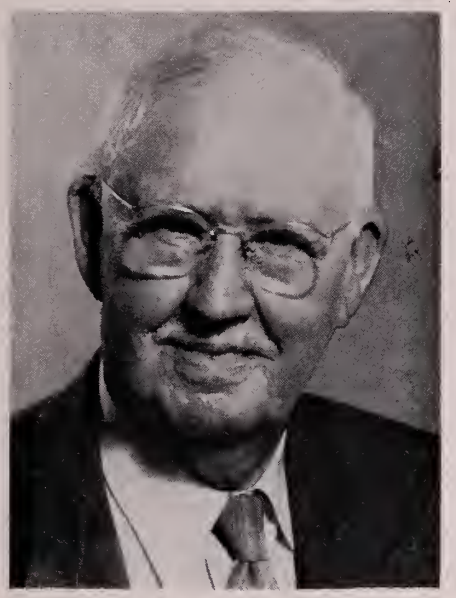
Surviving in addition to his wife are two sons, Dr. Allen H. Shields of Beaufort, S. C., and Frederick S. Shields of Galveston; one daughter, Mrs. Dan Conoly, Jr., of Austin; and seven grandchildren.

DR. ALBERT R. BEAL

Dr. Albert Raymond Beal, for 45 years a general practitioner in San Antonio, died December 12, 1956, in Graham, where he had moved upon his retirement from active practice in 1955.

Dr. Beal was a native of Rock Island County, Ill., where he was born July 3, 1867. After medical study at the State University of Iowa, the state where his family had moved, Dr. Beal served a mining company in Chihuahua, Mexico, as surgeon before being graduated in medicine at Rush Medical College, Chicago, in 1893. He practiced briefly in Colorado, three years in Washta, Iowa, and 12 years in Moline, Ill., before moving to San Antonio.

Since coming to Texas Dr. Beal had been a member of the Texas Medical Association and American Medical Association through Bexar County Medical Society. He was elected to inactive membership in the state organization in 1956. He was a member of the Association of Military



DR. ALBERT R. BEAL

Surgeons of the United States, was for 10 years a health officer for American Airlines, and was supreme medical examiner for the Home Fraternal League. He was a member of the Masonic Order, Shrine, Odd Fellows, and Church of Christ.

Dr. Beal is survived by his wife, the former Miss Sybil Clay, whom he married July 30, 1945, in Tildon; a daughter, Mrs. Ben Sweeney, Hollywood; a granddaughter, Mrs. Robert Sigmier, Hollywood; and two great grandchildren. His first wife, the former Miss Ida M. Freeman of Milwaukee, preceded him in death.

DR. C. J. HAMME

Dr. Curtis John Hamme, Edinburg, Texas, died in that city on February 27, 1957.

He was a native of Eaton County, Mich., having been born there on October 30, 1884, the son of Augustus H. and Laura (Julius) Hamme. He attended York County Academy in York, Pa., and Susquehanna University, Selins

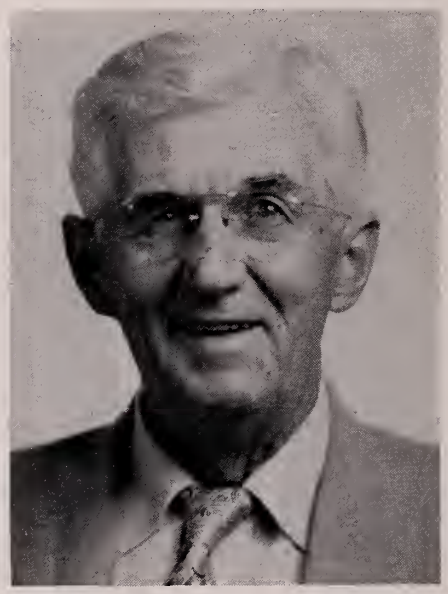
Grove, Pa., before receiving his medical degree in 1911 from Jefferson Medical College in Philadelphia.

Dr. Hamme was a general practitioner in Dover, Pa., from 1911 until 1928, at which time he moved to Edinburg, where he practiced until 1955.

He was a Selective Service examiner during World War II, and in the earlier World War had held a lieutenant's commission although he was not called to service.

Dr. Hamme was president in 1922 of the York County, Pa., Medical Society; president of the Hidalgo-Starr Counties Medical Society in 1931 and secretary of that group from 1938 to 1941; member of the American Medical Association; and member of the Texas Medical Association, in which he was elected to honorary membership in 1956.

Interested in many civic activities, Dr. Hamme was a trustee and steward of the Edinburg Methodist Church; past commander of the Knights Templar; and member of Masonic Lodge, Shrine, Knights of Malta, and Odd Fellows. He was president of the Edinburg Citrus Association, a



DR. C. J. HAMME

bank director in his hometown, and a past president of the Edinburg Kiwanis Club. His hobbies were hunting, fishing, and travel.

Dr. Hamme and the former Miss Fairy Elma Smyser were married on June 4, 1911, in Philadelphia.

He is survived by his wife; two sons, Dr. Ralph E. Hamme of Edinburg and Lorne S. Hamme of Weslaco; a daughter, Mrs. Mae Hamme Terry of Fairfield, Calif.; and four brothers, Lawrence E. Hamme, Thomasville, Pa., and Edgar J. Hamme, Frederick D. Hamme, and Arthur H. Hamme, all of York, Pa.; and a sister, Mrs. Ada Hamme Beck, Williamsport, Md.

DR. FRANK C. BEALL

Dr. Frank Cooke Beall, Fort Worth surgeon, died February 25, 1957, of cancer.

Dr. Beall was born March 4, 1880, in Fort Worth, the son of Dr. Elias James and Frances Cooke Van Zandt Beall. After completing his elementary education in Fort Worth, he attended Bingham Preparatory School in Ashville, N. C., and the University of Texas, Austin, where he was graduated in 1902. He then completed his medical degree at Johns Hopkins University School of Medicine, Baltimore, being graduated first in his class in 1906. After interning at Johns Hopkins Hospital, Dr. Beall returned to Fort Worth to practice.

A member of Tarrant County Medical Society, Texas Medical Association, and American Medical Association throughout his career, Dr. Beall was president of the county society in 1934, chairman of the Section on Obstetrics and Gynecology of the state organization in 1923, and an honorary member of the state group since 1949. He was a charter member

DR. FRANK C. BEALL

and the seventh president of the Texas Surgical Society, a member of the Southern Surgical Society, and a fellow of the American College of Surgeons. He also belonged to the Thirteenth District Medical Society, Fort Worth Academy of Medicine, and Alpha Omega Alpha medical fraternity. Dr. Beall was especially interested in cancer and did much to get the cancer organization in Texas started; he was on the advisory board of the Anderson Cancer Foundation. He was a member of Phi Beta Kappa scholastic fraternity and Beta Theta Pi social fraternity.

On June 1, 1909, in Houston, Dr. Beall and Miss Daisy Wilson were married; she died July 30, 1954. Two daughters, Mrs. Hunter McLean and Mrs. Beall Ryan; a sister, Mrs. V. B. Stevens; and two brothers, Van Zandt Beall and Jarvis Beall, all of Fort Worth, survive.

DR. CHARLES F. CARTER

Dr. Charles Franklin Carter, Gilmer, Texas, died February 5, 1957, in his automobile south of Gilmer following a heart attack.

Born November 7, 1890, at Enon, Upshur County, Dr. Carter was the son of Jefferson Franklin and Maggie (Jones) Carter. He attended school in Upshur County and was graduated from what is now East Texas State College, Commerce. His medical degree was obtained from old Fort Worth University Medical College in 1913. After doing general practice a year in Omega, Gregg County, Dr. Carter

moved to Fort Worth and became associated with the Terrell Laboratories. He later attended the University of Michigan to do postgraduate work in pathology and microbiology and then returned to Texas and Terrell Laboratories. He went to Dallas in 1920 and was active there until about three years ago, when he went into semiretirement at Gilmer, where he had opened a small laboratory. He continued, however, to direct the Carter Clinical Laboratories in Dallas.

Dr. Carter was consulting pathologists for Becton Clinic, Greenville; Ragland Clinic Hospital, Gilmer; St. Joseph's Hospital, Paris; and Philips Clinic Hospital, Greenville. At

DR. CHARLES F. CARTER

one time he was pathologist for Mother Frances Hospital, Tyler, and he had been director of laboratories at Parkland Hospital, Dallas; instructor in pathology and microbiology at Parkland School of Nurses; and consulting pathologist for St. Louis Southwestern Railway Hospital, Texarkana. He was author of "Principles of Microbiology" and "Microbiology and Pathology," and with a co-author, Dr. Alice L. Smith, had completed only last year a full revision of the latter work.

A member of the Dallas County Medical Society, Texas Medical Association, American Medical Association, Dallas Southern Clinical Society, and Theta Kappa Psi medical fraternity, Dr. Carter was a charter member of the American Society of Clinical Pathologists and a fellow of the American College of Clinical Pathologists.

During World War I Dr. Carter served with the Navy Medical Corps as a lieutenant. He was stationed in New Orleans, where he married Miss Ann Taber on June 15, 1918. Mrs. Carter survives, as do two sons, William F. Carter, Dallas, and Truman Terrell Carter, Gilmer, and a sister, Mrs. Malcolm Smith, Gilmer.

DR. J. E. BOYD

Dr. James Edwin Boyd, Hillsboro, Texas, died in a local hospital January 7, 1957, after a heart attack.

A native of Aquilla, Dr. Boyd was born February 3, 1881; his parents were Edwin Ruthven and Ada (Ingram) Boyd. He attended Baylor University, but received his medical education at the Memphis Hospital Medical College, Memphis, Tenn. (now the University of Tennessee College of Medicine), from which he was graduated in 1903. Later, he did postgraduate work in the Chicago Eye, Ear, Nose, and Throat Hospital. After graduation from medical school, Dr. Boyd practiced nine years in Aquilla, but moved in 1912 to Hillsboro and specialized in eye, ear, nose, and throat. He built the Boyd Hospital there in 1922, and was its owner and manager at the time of his death. It was sold recently to Drs. J. M. Buie and Silas W. Grant, and they have named it the J. E. and Rosa Boyd Hospital.

Dr. Boyd was a member of the Texas and American Medical Associations through the Hill County Medical Society, which he had served as secretary from 1933 through 1945 and as president in 1946 and 1947. He also was a member of the Twelfth District Medical Society, Masonic Lodge, Rotary International, Chamber of Commerce, Christian Church, and a former member of the Hillsboro school board.

DR. J. E. BOYD

He was married in February, 1904, to Miss Rosa Wright, McGregor. Mrs. Boyd survives as do a daughter, Mary Jane Boyd, Waco; a son, John Edwin Boyd, Hillsboro; and three sisters, Mrs. Evelyn Gidney, West; Mrs. Marcus Wigginton, Austin; and Mrs. Armede Osborne, Fort Lauderdale, Fla.

DR. HAROLD ROOSTH

Dr. Harold Roosth, Tyler, Texas, died of a cerebral hemorrhage February 7, 1957, in a Tyler hospital.

Born in that city on September 22, 1915, Dr. Roosth was the son of Sam and Celia (Wengrow) Roosth. He attended Tyler public schools and Tyler Junior College, received a bachelor of arts degree from the University of Texas, Austin, in 1936, and got his medical degree at the University of Texas Medical Branch in Galveston in 1940. He interned at St. Vincent's Hospital in Erie, Pa., until entering military service in 1941, and took his residency at John Sealy Hospital in Galveston from 1946 to 1948. Since that time, Dr. Roosth had practiced internal medicine in Tyler, where he

and his brother, Dr. Wiley Roosth, recently had moved their offices into the new Roosth Clinic Building.

Dr. Roosth was a medical officer during World War II, beginning as a first lieutenant in August, 1941, and being discharged in 1946 as a lieutenant colonel. He was a participant in four European Theater campaigns.

In Tyler, Dr. Roosth was on the attending and consulting staff of Medical Center Hospital and Mother Frances Hospital. He was a member of the Smith County Medical Society, Eleventh District Medical Society, Texas Medical Association, American Medical Association, American Trudeau Society, American Diabetes Association, Texas and National Geriatrics Societies, Texas Tuberculosis Association, and Texas Heart Association.

DR. HAROLD ROOSTH

He was a past president of the Tyler Optimist Club; a member of Ahavath Achim Synagogue, B'nai B'rith, Zionist Organization of America, and Tau Delta Phi and Phi Delta Epsilon fraternities.

Dr. Roosth married Miss Rosa Lee Leaman of Galveston on August 22, 1942, in Tyler.

He is survived by his wife; three children, Thomas Malcolm, Cynthia Ann, and Marleen Samea Roosth of Tyler; five brothers, Bennie, Isadore, Sol, Jake, and Dr. Wiley Roosth, all of Tyler; and a sixth brother, Dr. Hymie Roosth of Corpus Christi.

DR. T. H. McCONNELL, JR.

Dr. Thomas Hugh McConnell, Jr., Sulphur Springs, Texas, died of a heart attack February 27, 1957. He had been ill for about four years.

A native of Waller, Dr. McConnell was born April 2, 1909, the son of Thomas Hugh and Rebecca (Shelton) McConnell. A graduate of the University of Texas, Austin, and the University of Texas Medical Branch, Galveston, Dr. McConnell served his internship and a residency at Parkland Hospital, Dallas. He then began the practice of general medicine and surgery in Sulphur Springs, being active there from 1936 until 1954.

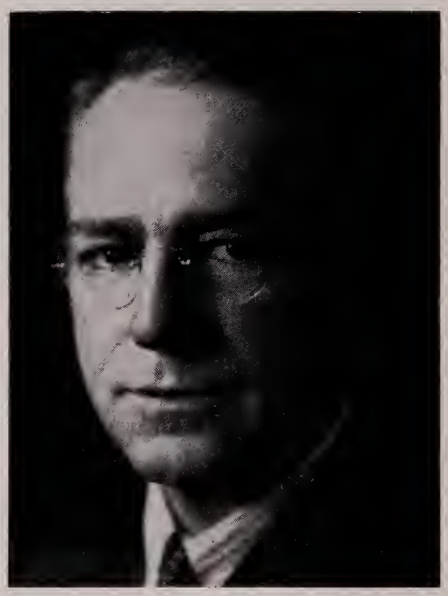
Dr. McConnell was a member of the Hopkins-Franklin Counties Medical Society, Texas Medical Association, and American Medical Association throughout his professional career and served his county society as president in 1946. He was a member of Phi Chi, Alpha Omega Alpha, and the Baptist Church. He was a Mason and Shriner, a reserve Army officer, and consultant to the local draft board.

Miss Hazel Alice Ditto and Dr. McConnell were married in Dallas, June 14, 1935. Mrs. McConnell; two sons, Thomas Hugh McConnell III, a student at Rice Institute, Houston, and James Michael McConnell, Sulphur Springs; and a sister, Mrs. Jewell Askew, Houston, survive.

DR. JAMES G. FLYNN

Dr. James Graham Flynn died of coronary thrombosis January 31, 1957, in Houston, Texas.

Born in Galveston on February 3, 1885, he was the son of John W. and Susan (Cole) Flynn, and received his preliminary education in the Dallas public schools. He then attended the University of Texas Medical Branch, Galveston, from which he was graduated in 1907. He interned at John Sealy Hospital, Galveston, and studied at the Rockefeller Institute, New York. Dr. Flynn practiced in Galveston until 1926, then moved to Houston, where he remained until his death.



DR. JAMES G. FLYNN

He was a member of the Texas and American Medical Associations through the Harris County Medical Society, and also was a member of the Texas Surgical Society, Houston Club, Doctors Club, and Episcopal Church. He was a fellow of the American College of Surgeons, a past assistant professor of clinical surgery at Baylor University College of Medicine, a past president of the Postgraduate Medical Assembly of South Texas, and a thirty-second degree Mason in both the York and Scottish Rite Orders and a member of the Shrine.

During World War I, he was a lieutenant colonel in the Army Medical Corps, served in Camp Bowie, and as chief surgeon of a base hospital.

Dr. Flynn and Miss Charlotte Robertson were married August 21, 1907, in Galveston. Mrs. Flynn, Houston, and a son, James Graham Flynn, Jr., and a brother, John W. Flynn, both of Dallas, survive.

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The Inter-Doctor Phase Of Medical Ethics

Much has been written and said of medical ethics. Other professions have envied our ethical standards and in some measure have sought comparable standards. Periodic revisions heretofore have partially confused our statement of ethical principles, but the American Medical Association has proposed recently a revision that is shorter and comparatively easily assimilated to serve as a guide to ethical conduct.

I think all doctors agree that the welfare of the patient comes first and that financial gain is subordinate to this welfare. I have never known a doctor to refuse to treat a patient who needed treatment when poverty prevented payment for services. We are agreed too that we should improve our knowledge and skill in order to enhance our help to our patients; that we should seek consultation when we think it best for the patient; and that we should strive to merit the confidences entrusted to us and not divulge them unless required to do so by law or to protect the health and welfare of the individual or community.

I would like to enlarge upon what doctors owe to their fellow doctors and to themselves. Patients often misunderstand our profession. We all have had the experience of the patient telling us something we had told him which we know certainly we did not tell him, a matter only of misunderstanding. We can readily see how a patient might innocently convey a false idea, thought to come from one doctor, to another doctor, which might give the second doctor a false impression of the first. The golden rule cannot fail

to be a boon to pleasant inter-doctor relations. We should put ourselves in the other doctor's position and not be too ready to criticize his handling of the case.

For example, a patient who had been seeing his doctor with what appeared to be influenza the first two days might call on a second doctor on the fifth day when he obviously was afflicted with poliomyelitis with paralysis. The second doctor should explain to him that what is now an obvious diagnosis was very difficult or impossible three days earlier. This will serve to strengthen the opinion of the patient of both doctors and make the doctors more compatible. Or the alcoholic auto wreck victim who was sutured by the local doctor, in another town several days later confronts his own doctor who might think the suture job a sloppy one. If he should tell the patient he thinks it a sloppy job, he may be inadvertently slandering the suturing doctor and starting a law suit when the truth might be that the patient's alcoholism and uncooperative behavior prevented a smooth job. No good can come from debasing the original doctor, and the old doctrine of saying nothing about someone unless we can say something good should prevail unless the welfare of the patient can be improved by speaking. A third example might be a patient with a ruptured appendiceal abdominal abscess found at operation by a second doctor three weeks after the original examination. The patient should have it explained to him that what he had was obscure and difficult to determine; that it could not be diagnosed absolutely before operation; and that he should not feel the first doctor did him an injustice by not diagnosing it three weeks before. This serves the same purpose as the first example.

We find in Hamlet:

> This above all: to thine own self be true,
> And it must follow, as the night the day,
> Thou canst not then be false to any man.

In evaluating a long story of a patient we should remember to explain properly to the patient in order not to discredit falsely his former doctors. Mutual respect and admiration is thereby given a boost.

—R. B. G. Cowper, M. D., Big Spring.

"Socialization" Opposed

When socialization occurs in one aspect of a culture, there is likelihood of its spread into other aspects. A medical profession opposed to socialized medicine logically must be against other socialization measures.

So have many stressed from time to time.

The House of Delegates of the Texas Medical Association, taking action during the 1957 annual session, apparently heeded this advice, for a number of resolutions adopted at that time relate to the increasing size and power of central government.

Once more the House voiced its support of the Bricker amendment, the proposal that would curtail the treaty-making powers of the executive branch of government.

It expressed approval of the proposed twenty-third amendment to the Constitution, which would prohibit the federal government from engaging in business in competition with private enterprise, and of the repeal of the sixteenth amendment, which provides for the graduated income tax through which the government obtains its billions of dollars for spending with a lavish hand. Opposition to federal subsidy for medical school construction also was reaffirmed.

Another resolution favored the passage of Jenkins-Keogh bills to give self employed persons the same advantages of tax deferments on approved retirement plans that are enjoyed by other workers.

These and other activities during the session in Dallas are reported in detail in the organization section of this *Journal.*

Doctor Draft Improved

The special doctor draft act, which has been in effect for six years, comes to an end this

month. In its stead, an amendment to the present regular draft act will make possible the calling into military service of enough physicians to assure servicemen of good medical care—that is, if the United States Senate approves legislation already passed by the House of Representatives, as is anticipated when this is written.

Most physicians have considered the special draft law to be discriminatory legislation, and although the American Medical Association went along with the original measure because of the medical profession's recognition that our fighting men should be well cared for and the general belief that such legislation might be necessary as a temporary emergency measure at the time of the Korean warfare, renewals of the act have been disapproved. Despite the fact that the new provisions will permit physicians and allied specialists through age 35 to be called to duty because of their profession if they have had educational deferments, rather than by age groups, as in the case of other registrants, the new measure is a step in the right direction.

One provision physicians are glad to see carried over from the special doctor draft law is that calling for local, state, and national advisory committees. These committees, composed of physicians, dentists, nurses, and veterinarians, have advised Selective Service boards as to the essentiality of these professional personnel in their own communities so that civilian, as well as military, needs might be met.

Dr. Harold S. Diehl, who is chairman of the American Medical Association's Council on National Defense, has emphasized, however, that when the special procurement machinery is no longer required, "we believe that this discrimination should be eliminated."

A bright spot in the whole picture has been reported by Assistant Secretary of Defense Frank Berry: There has been a "sharp" decrease in the number of resignations from the medical branches of the armed services, and enough physicians are now commissioned or committed to service to take care of military needs for next year without drafting doctors.

State Health Measures Mainly Satisfactory

With the adjournment of the fifty-fifth Texas Legislature late in May, Texas physicians could look with satisfaction on the health legislation score. On the whole, this was a successful session for the doctors, even though they fought no great battles for or against specific measures.

The Texas Medical Association was interested in developments in the mental health picture in Texas. A new mental health code made possible with passage of a constitutional amendment permitting commitment of the mentally ill to a hospital for treatment without jury trial was adopted with the Association's approval. Also strengthening the state's program for care of the mentally ill was authorization for the Board for Texas State Hospitals and Special Schools to establish outpatient clinics for the mentally ill; a 60 bed community hospital for treatment, research, and education; and a separate hospital of 500 beds. These steps were encouraged by recommendations of Dr. Francis J. Gerty, Chicago psychiatrist retained for a special consultation under sponsorship of the Association's Committee on Mental Health.

Numerous measures relating to regulation and licensing of various groups in the healing area were considered. The Association was pleased to see a physician retained on the board for licensing vocational nurses.

Also of concern to Texas physicians were first steps toward establishment of a state medical school in San Antonio. Study by the Commission on Higher Education of the need for a school and the desirability of the Bexar County site must come first.

A summary of action on bills with health implications introduced into the Legislature appears in the news section.

President's Page

WILL PREPAID MEDICAL CARE DEFEAT ITS PURPOSE?

Prepaid medical care is a relatively new idea. Yet, more than two-thirds of the population of America now have some type of hospital or sickness insurance. Two or three decades ago only the well-to-do and the very poor received the best hospital or medical care. The average or middle class rarely had cash or a bank account sufficient to take care of many of the ordinary illnesses. Long illnesses or long hospital confinements were considered catastrophes.

Then came the plan to insure oneself and family against sickness, just as people had been insuring themselves against death. This they could do for only a few pennies a day unless the salesman or the company required a life insurance policy along with the hospital policy. The extra load of the life insurance policy frequently made the price of the premiums prohibitive, and under that plan little progress was made in the hospital insurance field. Finally Blue Cross came out with an exclusive hospital care plan, and many other excellent companies followed suit. As time passed, the claim forms were simplified and more benefits were offered. Of course the increased coverage required higher premiums. It also became apparent that the more complete the coverage the more readily the patient entered the hospital and the longer he remained. This increased the need for both hospital beds and hospital personnel, which in turn greatly skyrocketed the cost of hospital care.

When surgical benefits were added to the policies, an occasional patient was accused of entering the hospital for doubtfully needed surgery while a surgeon in all too many instances was accused of increasing his fee when he learned that his patient had a good policy. This, too, added to the expense of medical care. Once surgical fees were added, other specialties began demanding coverage for their particular field. As all these benefits were added, the premium increased and the lower income groups, for which the protection was first intended, found the price even more prohibitive. If these trends continue, only

the middle or upper income people can afford to keep their insurance, and they will soon learn that it is much more economical to finance their sickness bills as they occur and will allow their policies to lapse.

The value of prepaid insurance to cover a large portion of the cost of illness has been proved. It has doubtless retarded the progress toward socialized medicine. If it is to continue without increasing the cost of medical care, a few important points must be understood by the patients, the hospitals, and the physicians. Some of these follow:

1. Partial coverage leaves a portion of the bills to be paid by the patient and will discourage unnecessary admissions and long stays in the hospitals. This type is much less expensive than full coverage.

2. Partial hospital coverage can be carried on an entire family for less than the price of a package of cigarettes a day. With most of the hospital bills paid by insurance, the doctor's fees could be amortized at a rate to be agreed upon by the patient and his physician. To be sure, the doctor would lose an occasional fee, but all except the most indigent would get medical care without resorting to charity.

3. When surgical or medical benefits are included, every physician must be on the alert lest he overcharge his patient. He must remember that the insurance premiums are often paid at a considerable sacrifice to the family in his care.

4. A constant cooperative effort should be made by hospitals, insurance companies, and physicians to (a) make the insurance forms simpler, (b) educate the public in the evils of abusing their protection by pointing out to them that they are only increasing their own premiums for the following year, and (c) see to it that insurance claim checks are written in such a manner that the hospital and the doctor will not be by-passed by the occasional person who forgets to pay the bills once the check is cashed.

Denton Kerr

ORIGINAL ARTICLES

Spiritual Allies In Medicine

Presidential Address

MILFORD O. ROUSE, M. D.

Dallas, Texas

IT IS COMMENDABLE and in order for medical meetings and other public gatherings to be opened with prayer—a fitting symbol of the need and the privilege of man's personal contact with God. Last year when I assumed the responsibilities of President of the Texas Medical Association, I reviewed a basis of partnerships in health, listing as our partners God Himself; our fellow practitioners; the good ladies of the Woman's Auxiliary; paramedical groups; other professions, particularly law and journalism; governmental agencies; and others. During the year, I have had opportunity to discuss various phases of this partnership, and I would like now to come back to what I consider the most fundamental of all partnerships.

Dr. Milford O. Rouse, ninety-first President of the Texas Medical Association, presented his Presidential Address April 29, 1957, at the opening general meeting of the Association's annual session in Dallas.

The most fundamental of all partnerships in medicine is with the ministry. The physicians' need for a personal, working religion is emphasized, as are the interest of the clergy in health and the practical value of religion in health. More and more, the clergyman is being welcomed by the doctor as an essential part of the health team.

In recent years, religion and health have stood at the top of discussions in all media of public communication—newspapers, periodicals, radio and television, seminars, and forums. As suggested in a recent editorial in the *Journal of the American Medical Association,* medicine and religion are drawing more closely together, possibly because only in science and the soul is there refuge from nuclear destruction. As will be mentioned, another possible answer is the growing recognition of the worth, the dignity, the needs, and the rights of the individual man.

I would like to discuss briefly the physicians' need for a personal, working religion; the interest of the clergy in health; and the practical value of religion in health.

Genesis tells us that man was created in the image and likeness of God, and Paul speaks twice in First Corinthians of our bodies being "temples of God." It is intriguing to think that had man not sinned in the Garden of Eden, disease might not have come into this earth of ours, even though the Creator would have had to work out other plans to keep the earth from being over populated. Ever since the fall of man, there has been an endless effort to restore him spiritually and physically. As pointed out by Dr. Granville T. Walker, of the University Christian Church of Fort Worth, in a current editorial comment in the April *Texas State Journal of Medicine,* the words, "health, hale, whole, and holy" all come from the same Anglo-Saxon root, with the provocative thought that in healing man and making and keeping him whole, there is a definite connotation of holiness or a state worthy of spiritual worship. It is not surprising that in the early centuries the priests or "holy men" took the lead not only in religion but also in healing. Typical examples were in the aboriginal Indians of North America and among African tribes. Significant was the fact that such priests-healers treated the whole man, a concept we are now recognizing.

Particularly from the time of the Greeks, the professors of medicine and the ministry separated, to the point that in the Middle Ages there was a regrettable conflict in many points between science and religion. Most encouraging, however, is the fact that in recent decades these two groups have displayed parallel and mutual objectives and have recognized overlapping interests and responsibilities. Incidentally, medical history is replete with outstanding examples of men of science, particularly physicians, who have unashamedly avowed a simple faith in God and in His work in the creation and the maintenance of the world and the inhabitants thereof. It is my humble opinion that any physician who has studied with an open mind the wonderful construction and function of the human body and the unmistakable evidence

of the relationship of spiritual and mental factors on the function of the human body comes to the inevitable conclusion that a Supreme Power and design is behind the world. Certainly after even a short practice, the doctor acknowledges to himself the unmistakable evidence of the personal power and influence of God in the individual lives and health of men. It has been said that there were no atheists in the foxholes of modern warfare. Similarly, I cannot conceive of atheists in the operating room where a life hangs in the balance, or in the delivery room where the perpetual miracle of birth is evidence.

Every physician in medical school, hospital, and private practice has been the unmistakable evidence of divine will and planning in life when of 2 patients with similar symptoms, physical conditions, and therapy, 1 survives, 1 succumbs. Every physician also doubtless can recall instances in which the change for the better in a patient came when something was done to change the spiritual life of the patient.

The true physician therefore conceives of himself as being an instrument in the hands of God. A hospital in France correctly phrases it with a motto over its gateway: "I Dress His Wounds; God Heals Him."

It was one of the greatest physicians of all time, Dr. William Osler, who said: "Nothing in life is more wonderful than Faith—the one great moving force which we can neither weigh in the balance, nor test in the crucible." Dr. Elmer Hess, past president of the American Medical Association, stated publicly: "I don't care whether you are a Catholic, a Protestant, or a Jew, just so long as you believe in a Power greater than all of the instruments of science at your command. The doctor has to be a man with firm convictions concerning a Creator." Dr. Julian P. Price, a member of the American Medical Association Board of Trustees commented: "Our greatest need today is for every physician who is a member of a religious organization to reaffirm his vows and to let the public, as well as his colleagues know, in clear and unmistakable language, the principles for which he stands and the beliefs that he holds."

I would hope that every physician has the feeling, as do I, that God has a plan for the life of every individual. I believe that God's particular plan for me is in the field of medicine. I recognize my own physical and mental limitations in the practice of medicine, but I also have the conviction that my little best, plus the direction of God, is all that is expected of me. In all simplicity and humility, I want to state, as I did last year, that not for one second would I have the temerity to attempt to practice medicine without the personal feeling that I can depend on God to guide my efforts if I do my simple best and daily practice the recognition of the presence of God. In closing this part of my remarks, I would express a personal hope that every physician would have such a personal, practical, working religion that he will feel just as much at home talking to a patient about things spiritual as he would in talking about things physical. Our minister friends are happy to aid, as I will mention later, but every doctor should be able to point out the way to patients who are groping in spiritual darkness, as well as in physical plight.

The members of the profession or calling of the ministry have always had a great interest in the field of sickness and health. The man who is ill and recognizes the possibility of approaching death is sincerely interested in thinking about his soul and is ready for the kindly ministry of a clergyman. When a patient is approaching a serious operation, or has to face the reality of a lingering physical disability, the wise minister can be of incalculable service in building up courage in the patient and establishing an excellent rapport with the doctor who has the professional responsibility of the patient. And certainly when a patient is facing an exodus from this life, the minister feels a wonderful opportunity of God-given service, which extends to the family after the physical case is closed.

Therefore, there has been a heartening manifestation of interest by clergymen in practical ministrations in hospitals and in mutual discussion of problems of health with physicians. Witness the American Foundation of Religion and Psychiatry, in which Dr. Norman Vincent Peale is a moving figure; the National Academy of Religion and Mental Health, composed of 400 clergymen, 400 members of the American Psychiatric Association, and 300 psychologists, sociologists, and other laymen; and the Institute for Pastoral Psychiatry at Bellevue Hospital in New York.

Here in Texas is being celebrated the first anniversary of the work of the Institute of Religion at the Texas Medical Center in Houston, where, in cooperation with the Greater Houston Council of Churches, students from five theological schools come for practical courses in ministry to the sick. As a corollary, elective courses in religion are given to medical students, "to help them learn about the resources the church can offer them in their practice." It is reported that 35 hospitals (more than half of them mental hospitals) have clergymen and seminary students receiving pastoral training in actual contact with the sick and dying. Seminars are being held for clergymen and physicians to discuss problems of mutual interest. A number of clergymen have become medical practitioners, as Dr. Henry Raphael Gold of New York, a former Dallas resident and graduate of Baylor University College of Medicine.

Clergymen and physicians alike admit that there are numbers of instances of clinical improvement and cures which can be explained only on spiritual bases. God does not now usually manifest his miraculous

powers in the sudden supernatural experiences as described in the Bible, but it is logical that He use His ministers and physicians in this day and time to effect cures and changes that are truly as miraculous as in the old days. The response to antitoxin of a child at the point of death from diphtheria is truly a miracle, as also are the results of the many difficult surgical procedures of this day, even on the heart itself.

Ministers and physicians are likewise interested in the possible harm to the public from "faith-healers," most of whom are flamboyant cultists, collecting millions from elaborate radio, television, and tent performances, as expressed in the *Journal of the American Medical Association.*

In review, it is heartening to see the minister sincerely desiring a place in the health team of today and being cordially welcomed by the physician as an essential part of this health team. All of this results in the individual's growing respect for his doctor and clergyman as personal guardians of his well-being, rather than just personal judges of human traits.

And now a few thoughts in closing. Students of history readily acknowledge that the teachings of Christianity, in which are emphasized the dignity and the worth of every individual, have had most to do with the development of the true principles of democracy, in which the rights and privileges of every individual are upheld. In recent decades, there has been a tragic tide toward the subjugation of the rights of the individual to the ever encompassing encroachment of central authority or power — a "creeping paternalism" under the guise of the so-called "welfare state"—that bids fair to wipe away the rights of the individual "little men." I trust that it will not be regarded as sacrilegious when I point out that the medical profession in the United States is one profession that has up to now remained a bulwark in opposing this trend toward centralization of power. Perhaps it is the intrinsic feeling of the physician that he owes his most humble patient the utmost skill and devotion that actuates the physician to resist any undue infringement of the rights and principles of the individual citizen. Ambitious, power-hungry politicians will continue the relentless attack to take away more and more individual liberties. Physicians will need more and more of the spiritual strength that alone can temper them with the unyielding courage necessary to carry on the struggle. Here again, the possession of a personal working religion by every physician could easily determine the difference between continued freedom, intellectual and political, and virtual enslavement.

The physicians of the future, medical students or potential students, constitute a great responsibility to the medical profession. We have always given freely of our time and of our personal example to student physicians. It is more than ever imperative that we maintain examples of spiritual integrity as these students make "case studies" of our individual lives. A valuable addition to the faculty of every medical school would be a student counselor, a man of great wisdom and understanding, who would be capable of winning the confidence of every student and guiding him in the development of personality and spiritual power while he develops his scientific acumen. We need no less of the science of medicine but more of the art, and a large measure of the art lies in the spiritual capacity of individual physicians.

A final prescription for me, for you, and for our patients, from Third John 1:2 is ". . . that you may prosper and be in health, even as your soul prospers."

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The Doctors' Positive Program

DENTON KERR, M. D.

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FOR ALMOST two decades it has been said, all too often, that the physicians of America are too negativistic. Of course, this expression was originated by a group of people whose ideals and philosophies are completely opposed to the American way of life. Not any of these people could trace their ancestors back to the early American settlers. Few, if any, had relatives in the American Revolution. I dare say that less than a score or so of them had grandfathers who fought on either side in the War Between the States. It is entirely a new breed or a new stock who waited until the wilds of America had been conquered by the "blood, sweat, and tears" of the most courageous people that history has recorded.

Once the wilderness and the plains were converted into industrial and agricultural areas and most of the dangers were over, these people with a new philosophy

came pouring into America as rapidly as our immigration laws would permit. They were not satisfied with the form of government which had made America grow from a primitive, unsettled expanse of land to the most productive nation on earth within a few generations. They were not satisfied with anything they found in this great country of ours. They set about making it over. They were dedicated to their task, and their plans were well formulated. In fact, they had many plans and many alternate plans, so

Dr. Denton Kerr, Houston obstetrician and gynecologist, presented this address as incoming President of the Texas Medical Association at the concluding General Meeting Luncheon at the annual session in Dallas, May 1, 1957.

Statements that physicians are too negativistic are used as propagandas to make it appear that American Medicine has failed. Actually, not only have doctors of this country contributed to an increased life span and reduction in morbidity, they have stood for and worked toward a government "of the people, by the people, for the people."

that if one method of attack should prove unsuccessful they could keep on and on until finally this great system of capitalism and free enterprise would become strangled with their philosophy of socialism and welfare-statism.

To accomplish this completely many radical changes had to be made in our way of living. By a close study of the rise and fall of the great nations of the past, they had learned that to do this most rapidly they must make the government take over, one at a time, those segments of our economy that affected the greatest number of citizens.

With 30 or 40 per cent of the American physicians in the armed forces and the remainder working themselves to death at home, they singled out the medical profession as one of the earlier targets. In the mobilization of the gigantic military forces for World War II, America had much higher standards in the physical and mental requirements than most of the nations involved. In the files of the rejectees these do-gooders found great quantities of information which they could use as propaganda to make it appear that American Medicine had failed and that the citizens of America were unable in many instances to obtain medical care.

By this time they had found friends in many branches of our government. Many of these socialistically minded people who were not inclined to fight for the preservation of American freedom pushed their way into the influential positions left vacant by the patriotic Americans who were entering the war. They were also successful in getting into many of the new jobs being created by the government. Some of the most influential ones entered the new and rapidly growing Department of Health, Education, and Welfare. It was in this agency that they worked so hard gathering statistics and compiling them into a 187 page book, titled "American Health—A Ten Year Plan." In this book they dramatically showed the number of American boys who could not fight for their country because they had flat feet, myopia, congenital heart disease, defective teeth, malnutrition, and scores of other ailments that could be prevented and could be corrected by their plans of medical care. They even took up mental deficiencies, accidents including death on the highways and in the homes, and told how many man hours per year were being wasted because the physicians of America were not following "their plan." Not once in this great masterpiece of literature did they tell how much the life span had been lengthened in America since the turn of the century. They did not mention that the time lost from sickness and accidents had been reduced in 40 years from an average of 27 days per year per employee to less than 7 days, and that the common cold and alcoholism caused a high percentage of this loss. They did admit that America has the best medical schools, hospitals, doctors, and nurses on earth, and that students from all over the world come here for their training, but they maintained that they could do it much better.

They found friends in Congress who introduced the Murray-Wagner-Dingell Bill which would have socialized medicine with one great effort. Of course, the physicians of America fought it to the bitter end. With the help of their friends the bill was defeated. Since that time the alien idealogists have hated any and all phases of organized medicine. Other segments of our economy have been attacked again and again by the tireless efforts of these people who have been successful to an alarming degree. The physicians have continued to oppose them at every turn because even a meager knowledge of our system of government causes anyone to see that medicine, agriculture, transportation, or any one phase of our economy cannot long remain free when all the rest has succumbed to the socialistic state. The propagandists have fought back by saying over and over that the physicians of America are "against everything." And they have spent untold millions of the taxpayers' money publishing books and pamphlets, making speeches to any audience that would listen in an attempt to sell their false doctrine. Occasionally one of our own less informed members becomes alarmed at their propaganda and comes rushing excitedly to us demanding that we devise a more positive program.

OUR PROGRAM

I submit the following points to prove that the physicians of America have always had and will continue to have a positive program. Even before the organization of American Medicine the doctors worked diligently for higher standards, both ethically and academically. No other profession donates as high a percentage of its time to teaching, training, coaching, and assisting its future members in getting started. As a result of these efforts we have more and better trained physicians per 100,000 people than any other large country on earth.

We have been for an enlightened membership, and we can point with pride to the many civic activities of our members in their respective communities. Rarely does one find a good doctor who fails to give much time, effort, and money to local projects.

We have always been for public health or preventive medicine and proudly list cholera, malaria, typhoid fever, yellow fever, smallpox, diphtheria, and numerous other diseases that have been almost eradicated.

We have been for the strongest national defense possible commensurate with our ability to pay without jeopardizing our economy, but we have never favored the discriminatory and, in my opinion, unconstitutional peacetime draft of one profession or class when other similar age groups are not included.

We have always been for reasonable and necessary taxes, but we shall ever oppose the confiscation of people's income when the money is used to buy votes, bribe nations, and maintain a gigantic bureaucracy that renders our form of government less efficient and moves it further and further away from the people.

We are for a balanced budget and a rapid liquidation of our national debt.

We are for the best possible care of veterans with service connected disabilities, but we believe the more fortunate of us who sustained no injuries should pay our way if possible; if we are unable to do so we should take our turn in local charitable institutions just as our relatives do who were not privileged to serve in the armed forces.

We have been for strong local and state governments with courageous, visionary leaders who recognize and solve our local problems without screaming to a virtually bankrupt federal government every time we want a sewer line, a hospital, or swimming pool, or every time we have a fire, a drouth, or a flood.

We are for a nation of churches where the preachers cling to religious principles and abhor the idealistic philosophies which would lead to atheism.

We have always been for the very best schools possible with well paid teachers to teach our children, not only the three R's, but also the basic principles of a free enterprise system. We certainly expect these teachers to defend our constitution and our system of government. But we detest those demagogues or traitors who constantly search for only the weaknesses in our way of life and who try to poison these young minds with the idea that private ownership or capitalism has failed and should be supplanted by some foreign, ancient, or idealistic philosophy.

We are for a strong legislative branch of government composed of members who have the courage to put the welfare of the country above pressure groups or party principles.

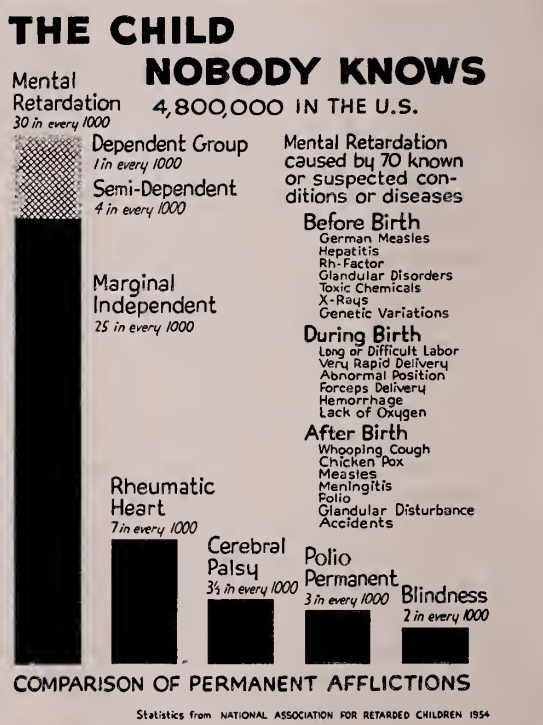
We are for an executive branch of government that will not usurp the legislative powers and will rise above the influence of the bureaucracy over whom the voting citizen has little or no control.

We are for a judicial branch of government which is made up of qualified conscientious men who will interpret the constitution as it was intended by our founding fathers and who will leave the alteration of this great document to the vote of the people, as it was intended.

In conclusion, we humbly recognize that we have inherited the greatest and most nearly perfect form of government that was ever designed by mortal man. We feel it is our duty to protect it from the impulsive, irresponsible idealists who seek to replace it by the very idealogies that have led to the downfall of every great civilization of the past.

Yes, we are dedicated to the task of keeping it a government "of the people, by the people, for the people" and may we have the cooperation of every American who wishes to pass along to his children and his grandchildren the great heritage that has been ours.

Dr. Kerr, Hermann Professional Building, Houston.



The Art of Introspection

ROBERT B. ANDERSON

New York, New York

EVERY DAY, somewhere, a doctor buries a patient who was too healthy to stay alive. I am sure that many of you gentlemen have had such an experience. The characteristics of the patient are familiar: the robust man who boasts that he hasn't been in a doctor's office in 25 years; the woman who never has a physical examination because they are "unnecessary and expensive"; the people of all ages and occupations who blissfully take their good health for granted and who shrug off as of no consequence the persistent signs of some major disorder.

Robert B. Anderson, president of Ventures, Ltd., and now Secretary of the Treasury, presented this talk at the Texas Medical Association's General Meeting Luncheon, May 1, 1957, during the annual session in Dallas.

Democracy must not be taken for granted. Every responsible citizen must ask himself some searching questions on armament, national debt and management, public administration, productivity, education, and the like, and ponder long the answers. The task of introspection is to assay and diagnose, to appraise realistically the dangers and difficulties which lie ahead, and to see them in their proper proportion and relief.

Many of these occurrences are made the more tragic by the fact that they need not have happened. The fact that they did happen attests to the deadly effect of false confidence, of false pride, of the calculated ignorance of those who were unwilling to concern themselves with the essential but unobtrusive processes upon which their very lives depended.

The point I would make is that whether we are talking about the health of an individual or that of the body politic nothing must be taken for granted. There is a live and encompassing requirement on occasion to look sharply within; to measure and examine; to learn whatever may be gained through observation and introspection.

The life processes of a society are subject to a long list of ills and maladies. They bear constant watching, especially during those periods in history when the environment to which they have accommodated is suddenly and radically changed. We are at one of those critical junctures now, and we are being forced to a critical appraisal of many things we formerly took on faith. Among these is the notable tendency for us to take the permanency of our institutions of government for granted. To us, nothing is more normal, nor more in tune with the true nature of man than that men should live together peaceably under some system of representative government. With 350 years of self-government behind us, it is at times difficult for us to see how politics could function logically on any other basis. Yet, if we were able to detach ourselves in space and time from our immediate experience and survey the past 5,000 years of history, we should presently see what a strikingly new thing democracy is, and how little the world has seemed to care for some of our favorite institutions.

Our young republic, in existence less than the span of three lifetimes, is one of the oldest—one of the very oldest—systems of representative government in the world. Political freedom has been the exception, not the rule, of man's social experience. For all but the past few moments of history the world has remained sunk in oppression, poverty, ignorance, and despair. Out of a thousand generations of men, only the last half dozen have seen life on earth become something meaningful and enjoyable on its own account.

The fact is simply that the American political experiment is something genuinely new under the sun and that it developed in response to a set of extraordinary conditions which never existed before and will never exist again.

There was the selective process by which certain types of people made great efforts and undertook great risks to come here in order to be free to expand their economic opportunities, to do and be in the new land what they were prevented from doing and being in the old. There was the geographic fact of a great empty continent, abounding in natural wealth, challenging the strength, the ingenuity, and the imagination of the venturesome, liberty-seeking people who came to its shores. There was the great leveling effect of the advancing frontier, thousands of miles in extent and 300 years in time, which assured that no man need become the servant of another who had the gumption and courage to move on to the back country.

With the frontier we acquired an enormous backlog of experience in practical self-government at the town hall level, long before we were called upon to assume that responsibility at the national level. Moreover, one of the most important things about this experience was the fact that whatever we did here in our new country was done new, for the first time. We did not have to displace something that was al-

ready there. We did not have to uproot the institutions of an old order to establish a new one. The American Revolution was essentially a struggle against an outside authority rather than the overthrow of a set of established social relationships within the body politic itself.

Finally, there was the strategic fact that first Europe's quarrels at home and later British policy combined with our own natural isolation to produce an incredible situation in which our nation could grow from its tenderest beginnings to become the most powerful in the world with only twice having been subjected to a serious external threat.

These were essentially the conditions under which we developed our political philosophy and our system of government. But they are not the conditions with which we are confronted today. It took three weeks for a ship to carry the news of Cornwallis' surrender to England in 1781. Now words are heard on the other side of the world the moment they are spoken. We are no longer isolated, and the events of the past two decades have taken us to the very center of the world political stage.

Our long and tranquil period of absolute physical security is gone forever, and we now share the problems experienced by all other nations who must live in close and continuous association with their enemies. The frontier is gone; the ready opportunities are gone; the "great empty continent" is thoroughly claim-staked. Our country is well-populated and becoming increasingly more so. The simple political and economic processes of a sparsely settled rural America have become enormously complicated, and the intricate lines of right and responsibility which pass between the individual and the group are now hopelessly tangled. Nothing fundamental to these relationships can ever be simple, clear cut, and easy to solve any more. For the rest of time, our actions will bear like the mark of Cain the impress of that vague, sometimes aimless lack of fixed direction which always characterizes the activities of large aggregations of people.

These conditions are not merely different from those under which our democracy was conceived and developed. They are in many ways similar to conditions which in other lands and other ages have proved exceedingly hostile to the prospects of free government: the presence of a large and continuous external threat, the involvement in the affairs of other nations, the sharply increased degree of government participation in the economic and social activities of the people.

Our problem is really whether or not democracy, so novel and so favored by exceptional circumstances in its early development here, may now prove equal to the task of survival in a changed and singularly indifferent environment.

What we have been able to achieve in the way of self-government is a possible, but by no means inevitable, outcome of our political evolution. About the most encouraging thing that can be said of it is that we at least have the capacity to carry the process still further and to win a still larger measure of freedom for the human spirit. But no benevolent First Cause ordained that we Americans should have democracy and nothing less.

We shall be able to keep the measure of democracy that we have only to the extent that we interest ourselves actively in its preservation and extension, that we probe deeply into the causes of its present disorders and shortcomings, and that we offer the very best of our thought and effort to those measures which will enable it to function more effectively. On no account must we take any part of it for granted.

This calls for the active use by every responsible citizen of what I have already suggested might be called the *art of introspection.*

NEED FOR APPRAISAL

We need to ask ourselves some searching questions and ponder long the answers, for it is upon the quality of the thinking done by its citizens that the fortunes of a free government ultimately depend. The action of the government can be no wiser than the collective thought of its citizens on which that action is based. This is especially true now, when the citizen possesses a direct and unprecedented interest in the issues of public policy.

There is a terrible urgency to the requirement that we devote our maximum efforts to these larger questions of existence in a world which trembles under the impact of its own revolutionary technology. We simply must keep our social institutions sensitive and receptive to the vast changes which our material progress will continue to make. A free people will normally accept responsibility for what they understand. They shift responsibility, or adopt the judgments of others on matters which they find too complex or too vague to become fully informed about.

Intelligent thinking is a fearfully hard thing to do. Mere listening or reading is not enough. The hardest kind of intellectual effort is essential to a really appreciative view of the grave matters confronting the free citizen of today.

Facts and relationships between facts must be evaluated and weighed. Conclusions and judgments must reflect the most careful synthesis of the most pertinent available information.

How do we, for example, establish a level of armaments adequate for our physical security, yet within

the capacity of our economy to support? How can we know what constitutes the level and disposition of forces which will safely "deter," when it is the potential enemy who really makes that judgment? How much of an armament load can our economy really stand on a long-term basis?

There are questions about the national debt and its management. I can remember—and so can you—when it was thought generally that the credit of the United States could not endure a national debt nearly so large as that which exists today. What today ought to be the philosophy of our public debt? How willingly will we work to reduce our governmental spending toward the goal of a debt reduction? What is the measure to which we can look forward to our rising population, industrial productivity, and gross national product to lessen the proportion of a fixed debt upon an expanding economy? How do we insure, in the context of a sound money market, sufficient credit for the continued essential expansion of our productive capacity?

There are questions of public administration. The history of every government is a history of steadily proliferating functions and personnel, of the gradual intrusion of government into areas previously reserved to private individuals and corporations. It seems less a matter of direction than of rate: the trend is all but irreversible. The relevant questions deal with how fast we shall permit the process to go on, where we can check and perhaps actually stop some of its particularly objectionable features.

Let me mention productivity. We have the highest standard of living in the world, fundamentally because the American worker produces from 3 to 30 times the value of goods and services produced by workers elsewhere in the world. For almost 100 years, the output per American man hour has marched steadily ahead at a rate of 2 per cent per year, and it is basically this continuous gain in productivity which has accounted for the phenomenal standard of living we are able to enjoy on a 40-hour week.

But here too are problems. We have cumulative agricultural holdings of more than 8 billion dollars, including a billion bushels of wheat, 10 million bales of cotton, 15 million pounds of butter. We pay nearly a million dollars a day just to store and protect these commodities. How do we dispose of these surpluses without undue waste, without disrupting the markets in which we and our friends must sell our current production? How do we prevent the accumulation of further surpluses without involving government in the role of economic arbiter of production?

Our most precious national resource is our people. Yet at a time when educational needs were never greater, half our students entering high school never receive a graduation certificate. Two out of 5 of those who enter college fail to graduate. For every high school graduate who earns a doctorate degree, there are 25 others who have the superior ability to achieve that degree who do not. How do we cut down on this staggering waste of talent and ability? How do we equalize the opportunities for education among our people? What must we do to insure an educational system which is expansive enough to provide a good basic education for all, yet sensitive to the needs of the minority capable of very high intellectual achievement?

These and thousands of other poignant questions must be asked, and answered in some way, by the people of America, as thinking individuals, because no one else is going to do it for us. They are matters which relate directly to our ability to go on living in a dangerous, complex world. They are matters which above all else, we must first understand in order that we may intelligently deal with them.

This then, is the task of introspection: to assay and diagnose, to appraise realistically the dangers and difficulties which lie before us, and to see them in their proper proportion and relief. It is the beginning of understanding.

Henry James once wrote a story about a man who went through life convinced that at some point a terrible catastrophe would overtake him. What that catastrophe would be he did not know. But he imagined many, and he became obsessed with the idea that one day, do what he would, it would come like a nameless beast from the jungle to destroy him. The catastrophe he feared never came. But another that he had not imagined did come. His obsession paralyzed his will and drained his life of all its vitality and spirit. His fixation became itself the beast in the jungle, and in the end it destroyed him by making empty and meaningless a life that might have been productive and full.

Today we are threatened by dangers and difficulties much more real than those that obsessed the hero of Henry James' story. They are of many different kinds, and it would be foolish to say that any one of them cannot materialize. But the dangers themselves are far less important than the attitude which we assume toward them, and it is the task of critical analysis to evaluate their possibilities fairly and realistically, without fantasy and fear.

It is our responsibility to confront these issues calmly and with confidence, giving them the best of our thought and reflection, seeing them as they really are and in their true colors and proportions. If we do this much faithfully and well, we shall continue to keep our Republic, and with it the freedoms and opportunities by which our people have thus far so nobly advanced themselves along life's way.

♦ Mr. Anderson, 230 Park Avenue, Room 1519, New York 17.

Medicare In Texas—1957

MILTON V. DAVIS, M. D.

Dallas, Texas

ON APRIL 28, 1957, the House of Delegates of the Texas Medical Association considered the problem of Medicare in Texas. Earlier the same evening the House heard from Col. Earl Lowry, deputy administrator to Major Gen. Paul I. Robinson, who acts for the Department of the Army in its mission of administering Medicare for the uniformed services as the administrative agent of the Department of Defense. Col. Lowry presented a factual report on how Medicare has operated in the several states and territories. He also reported that 68 per cent of the patients who have been treated under Medicare had answered questionnaires regarding the services rendered and that without dissent they had approved the program and approved the medical care they had received at the hands of the private doctors of the country.

The House of Delegates later considered a resolution against renegotiating a contract for Medicare in Texas. This resolution was referred to the Board of Trustees as a reference committee, which reported back to the House its disapproval of the resolution and recommended that the House authorize the Board to continue the present contract through January, 1958. After considerable discussion, and with a rather strong minority group dissenting, the Board's recommendation—amended to change the date to the 1958 annual session—was passed by the House. It appeared that in the minds of some there were reservations based upon the notion that Public Law 569 provided benefits not previously available to military dependents and thus constituted another wedge threatening the private practice of medicine. Let us see if dependent care is really new.

HISTORICAL SUMMARY*

On July 5, 1884, a proviso was inserted into the Army Appropriation Act for fiscal year 1884-1885, stating that "medical officers of the Army and contract surgeons shall, whenever practicable, attend the families of the officers and soldiers free of charge."[1] When the Unification Act of July 26, 1947, created the Air Force, the same authority as quoted was utilized for Air Force personnel. Subsequent Army and Air Force regulations defined dependents and stated which were eligible for medical care at Army and Air Force treatment facilities. Air Force regulations included that care should be given to dependents of armed forces, not just Air Force personnel, and this for the first time included the other services.

The Navy and Marine Corps operated under a March 3, 1899, law which provided that their personnel receive the same pay and allowances as may be provided for officers of corresponding rank in the Army. An act of May 10, 1943, provided for expanding facilities of the Department of the Navy for hospitalization of dependents of personnel of the Navy and Marine Corps; Public Law 569 specifically repeals this act.[2]

Acts of Congress in 1937, 1939, and 1944 authorized the Public Health Service to treat dependents of Coast Guard, Coast and Geodetic Survey, and Public Health Service personnel.

It should be apparent, then, from this historical summary that dependent care is not a new thing but that it has been with us by acts of Congress as well as by custom and precedent since 1884. The question, then, that was before the House of Delegates on April 28 and which is before all the doctors of Texas now and in the months to come is not whether dependents of the uniformed services shall be cared for at public expense, but how this shall be accomplished.

Let's take a look at what happened during and after World War II. Because of the changing times more and more young people were married, more and more of them had children, and more and more servicemen left pregnant wives at home when they went overseas or to distant bases. (Forty per cent of Medicare funds has gone for maternity care.) The military dependents who lived near a large facility were given some semblance of medical care, although in many

**From material prepared May 13, 1954, by the American Law Division of the Legislative Reference Service, Library of Congress, U. S. A.*

EDITOR'S NOTE: *The program the United States Congress established, effective December 7, 1956, to provide medical care for the dependents of military servicemen through use of physicians in private practice has created interest and a difference of opinion among members of the medical profession. Subject of a special meeting of the House of Delegates of the Texas Medical Association in September, 1956, Medicare was discussed again by the House in regular session in April, 1957 (Organization Section, this Journal), and will come before the House once more at the 1958 annual session, at which time it will be decided whether or not the Texas Medical Association will renegotiate a contract to cooperate in the program.*

After receipt of Dr. Davis' article on Medicare, Dr. Royce and his co-authors were invited to express their differing point of view and Dr. Davis in turn to phrase a rebuttal.

instances this was administered under conditions entirely unsatisfactory to right thinking doctors who were forced to care for them. Hundreds, perhaps thousands, of doctors were drafted out of civilian life predominantly to care for these dependents. Bigger and better military hospitals were requisitioned and some were built. Not until the passage of Public Law 569 was there any hope to change this trend from bigger and better government facilities to the utilization of private facilities for the care of these patients. The Congress in hearings and the law in effect state clearly that it was not the intent of Congress either to increase or to decrease military medical facilities for the care of dependents.[2]

FREE CHOICE

Among the critics of Medicare are many of the most distinguished Texas doctors, men whose honesty, integrity, and devotion to the cause of the free practice of medicine are entirely unquestioned. Many of these delegates have spent the greater part of their adult lives working for free enterprise, and it is perfectly natural that they would see in Medicare, because the costs are defrayed by the government, a definite threat to the private practice of medicine. However, this is a complex problem and there is more than meets the eye.

The Harris County delegation questioned whether free choice actually exists under the plan. As a matter of fact, patients under this plan have more free choice than do patients in our own city and county hospitals and the clinics of our private and teaching hospitals. Both the doctor and the patient have complete free choice, and it is the present policy of the Department of Defense to continue this indefinitely.

HARMONIOUS COOPERATION

This is the first time that organized medicine at all levels has been freely consulted and negotiated with in a plan concerning medical care provided for by the federal government. An American Medical Association committee worked hundreds of hours with the Department of Defense task force to draft the regulations implementing Public Law 569. Each state (except two) and territorial medical association has negotiated its own conditions of operation and fee schedules with the Department. The Department has placed some of its very best people in this program to make it work. They know that they have to take care of these people. They want the private doctors and the private hospitals of the country to bear a major part of this care because under the circumstances this will provide better care than the military can give. What this actually means is that 40 per cent to 60 per cent of the dependents of military people who formerly had no care, had charity care, or were captive patients of the military now have the free choice of selecting their own physicians and their own hospital and they have the assurance that wherever they are they can get first rate medical service.

The increase in morale resulting from Medicare has increased the reenlistment rates 300 per cent since December, 1956. These are trained personnel who because of their training are virtually irreplaceable. A few thousand technical experts reenlisting will offset the cost of the entire program.

There was considerable discussion about why we don't just get these patients an insurance policy and let them seek their own care under the policy. This matter was taken up in great detail in the hearings before both the House and the Senate. (Any interested member can write to the Armed Services Committee of either body and secure a copy of these hearings, if desired.) It was agreed unanimously that an insurance program would be considerably more costly, and goodness help us when they set up another government bureau to administer it! But perhaps even more important than that, an insurance program would probably inevitably end up in nationwide fee schedules which would remove the local autonomy now existing under the present plan. I do not believe that local autonomy can be overemphasized because it represents the most powerful single weapon that we have for maintaining the free practice of medicine. If we fail to renegotiate with the Department of Defense and if our House of Delegates fails to authorize our Board of Trustees to continue with this program in the future, there are certain likely consequences which we must consider:

1. We will lose the local autonomy and the power to negotiate.
2. The government will impose a fee schedule upon us rather than allowing us to negotiate our own schedule.
3. Inevitably other restrictions will be imposed as the convenience of the administering agency is considered above the convenience of Texas doctors and Texas patients.
4. Building and staffing of bigger and better government hospitals probably will be requested.
5. Cultists and other practitioners whose strongly organized and vocal efforts are now being parried by the Department of Defense will gain a foothold.

A look at the Veterans Administration medical program should be enough to help us decide what our action should be. In 1946 and subsequently, there was an effort to put into effect a hometown VA medical care plan for patients with service-connected disabilities. Partly because this plan failed,

and of course for other reasons too, bigger and better VA hospitals were built. When they ran out of patients with service-connected disabilities, they began to seek those with non-service-connected disabilities. Now doctors and medical associations all over the country are taking a second look at the hometown care plan, and many have decided that it would be better than the VA setup as it now exists. Medicare is our chance to operate a hometown care plan for dependents with free choice, both by the doctor and the patient. Many of these people are from low income groups and will subsequently belong to labor unions, veterans' groups, and other organizations, the officers of which have spoken out against organized medicine. We have a chance to show these people what the private practice of medicine is in a free society with complete freedom of choice.

REFERENCES

1. Conference Report on H.R. 6861, Forty-Eighth Congress, Fifteenth Congressional Record 569.
2. Section 306 (2), P.L. 569, Eighty-Fourth Congress.

♦ Dr. Davis, 3707 Gaston Avenue, Dallas.

Medicare in America —Any Year

THOMAS L. ROYCE, M. D.;
JOHN K. GLEN, M. D.;
HOMER E. PRINCE, M. D.; and
BILL ROBINS, M. D.

Houston, Texas

DR. DAVIS has made out an excellent case for state medicine. In doing so he has used those techniques perennially used by socialists to advance their programs a step: history, expedience, the philosophy that "this" is the best we can do, and threats of impending doom if we do not acquiesce.

Benjamin Franklin once said, "Your freedoms will not be taken from you save upon the plea of necessity."

Medicare is a part and parcel of a program of "necessity" for removing freedoms.

If, as Dr. Davis points out, the dependents were all cared for by laws of the last century, why pass a new law? We would not deny the accuracy of Dr. Davis' historical summary. We would call to your attention that long existence is not an assurance that a precedent is right. Just because the American serviceman has always been underpaid is no reason why he should remain underpaid.

We wish to thank Dr. Davis in granting that we who oppose Medicare are honest and that our devotion to the cause of freedom is unquestioned. It is for these very reasons that we can agree with him that in Medicare there is more than meets the eye.

The first item not to meet the eye at once is given in Dr. Davis' first paragraph. He says Col. Lowry reports that the recipients of Medicare approved the care they had received "at the hands of the private doctors of the country." Please note that one who participates in Medicare works for the federal government, is paid by the federal government, and is not, therefore, a private doctor. It is true that government work may not occupy more than 1, 2, 5, or 10 per cent of his time and that he therefore would be permitted to spend the rest of his time acting in a private capacity. The British physicians can do this too. The difference is that they spend 95 per cent or more of their time taking care of government cases. When to Medicare are added veterans' dependents, government workers and dependents, civil service employees, civilian employees of the armed services, and others, ad infinitum, the time and patients left for private practice may be as negligible for an American physician as for a British one. On October 4, 1956, Special Report 84-27 from the AMA's Washington office begins: "Dear Friends: About six months after the military dependent medical care program gets underway December 7, a second and more extensive federally aided medical care program will be started."

The Harris County delegation is right in its contention that there is not complete free choice of physician. Suppose Mrs. Army has gone to Dr. R. all her life, has paid him, has liked him, and would choose him any day. But Dr. R. sees the things that don't meet the eye in Medicare, and he refuses to participate. Mrs. Army *must* go to some other doctor because she doesn't rate well enough with the armed forces to be given the money to pay her own doctor —for that matter her husband can't be trusted with it either. If Dr. R. *does* participate in Medicare, Mrs. Army does have her choice. It is possible that Dr. R. can afford not to participate when Medicare covers only the dependents of the uniformed services. But what happens when the other ever increasing wards of the government are added to the list?

If we are to quote history and precedents, please remember that the Hill-Burton program was to be temporary. The acquiescence of physicians in this measure has opened the way for continuing expansion of federal financing of diagnostic and treatment centers which soon may serve as housing for state medicine. The income tax was not expected to go above 1 or 2 or 3 per cent. Those molehills inhabited by the busybodies who always take refuge in government hillocks, grow quickly into insurmountable sierras.

Dr. Davis makes it appear that organized medicine

and government are just buddy-buddy. Only 2 state associations out of the 48 had the fortitude to refuse to implement Medicare. We respect their judgment. And we feel there are very many in the Texas Association who can see the folly of being in one breath against socialized medicine and in the next embracing it in its worst form: state medicine.

The emphasis on increased reenlistment may not be justified; and here Dr. Davis neglected his usual careful documentation. Edmund K. Faltermayer in the *Wall Street Journal* of May 21, 1957, states: "Post exchange men cite a survey listing servicemen's reasons for staying in military life. Cheaper prices in post exchanges was the first reason cited by 76 per cent of enlisted men, topping even free medical care for dependents."

It is well known that the picture in industry isn't as pretty as it was in 1956; jobs are harder to find. To the armed services trained personnel are important —but are not to be trusted with enough money to take care of their wives and children. Why this distrust of our servicemen?

The insurance program suggested by the Harris County delegation was not one of government insurance with a bureaucratic setup in Washington, but was to be handled by commercial companies just as the insurance would be handled for the employees of say an oil company or steel company.

Dr. Davis states, "I do not believe that local autonomy can be overemphasized because it represents the most powerful single weapon that we have for maintaining the free practice of medicine." Here another feature doesn't meet the eye! The local autonomy is a myth. Every single regulation, fee, bill, statement, report, argument, or any other feature of Medicare is under the absolute, dictatorial power of a federal agency. The most powerful single weapon we have is in the soul of each doctor who rejects state medicine and refuses to practice it.

Even the threats enumerated by Dr. Davis are well within the realm of possibility. Government has historically, throughout all time, sought to penalize, defame, smear, and break those who oppose it; and to seem to "cooperate" with those who play ball with it and give it no trouble. The crux of the matter is ably expressed in number 3 of Dr. Davis' listed threats: "Inevitably other restrictions will be imposed as the convenience of the administering agency is considered above the convenience of Texas doctors and Texas patients." We are indeed naive if we think Medicare will serve to show the "dependents" how wonderful private medical care is. Actually, it will train them to think the federal government is the proper agent to furnish everybody good medical care at no cost to the recipient.

Gentlemen of medicine in Texas, we consider that Medicare is pure state medicine and is therefore a prime threat to all American freedom.

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Addendum

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I RESPECT THE OPINIONS of Drs. Royce, Glen, Prince, and Robins and have profited greatly in the past by discussions with Dr. Glen about these and similar matters. I believe that my original text expresses my own present feelings on most of these points and need not be reiterated. There are, however, one or two areas in their presentation which should be commented upon.

The quotation from the *Wall Street Journal* fails to recognize that post exchanges have been available for decades and that no change whatever in their function and activities has been published in the past six months; therefore, it is not reasonable to presume that the activities of the post exchanges could have resulted in the sharp increase in reenlistments which has occurred since December 6, 1956.

In addition to this the recognition by the Congress that Medicare has reduced the need for doctors in uniform is well borne out in the recent committee hearings held before the House Armed Services Committee considering H.R. 6548, pertaining to the doctor draft. These hearings were held on May 7 and 8, 1957. They were conducted by the Hon. Carl Vinson, chairman. The full committee hearings report can be obtained by writing Mr. Vinson or the committee clerk.

It is not my desire to quote any portion of these hearings out of context, but I would like to point out that on pages 1310, 1316, 1353, and 1354 there appear discussions centered around the request made by Department of Defense witnesses, with the full blessing of the Health Resources Advisory Committee, for an increase in the ratio of physicians to troop strength from the present 3.0 doctors per 1,000 troups up to 3.4 per 1,000. Gen. Silas B. Hayes of the Army and other Department of Defense witnesses plugged for this increase. The discussion consistently referred to the functions of Medicare in reducing the need for uniformed physicians. The only portion of this I would like to quote directly is from a summation by Mr. Blandford, the legal counsel for the House Armed Services Committee. This is an entire paragraph which is found on page 1,353 of these hearings.

In view of the fact that the Armed Services have been provided with adequate medical care, as evidenced by the health of the Armed Services and considering the fact that the recently enacted dependent medical care act may well relieve some of the requirements for physicians in the Armed Services, the committee is of the opinion that the ratio of three per thousand troop strength is adequate for the next two fiscal years and should not be exceeded.

Two paragraphs afterwards Mr. Blandford went on to state in substance that maintaining the physician-troop ratio at 3 doctors per 1,000 troops would reduce the need for physicians who might be called on an involuntary basis from 2,400 to 1,400 doctors in the fiscal year 1958 and from 2,700 to 1,700 doctors in the fiscal year 1959.

Emergencies In Anesthesia: Let's Stress Prevention

ROBERT W. VIRTUE, M. D., Ph.D.

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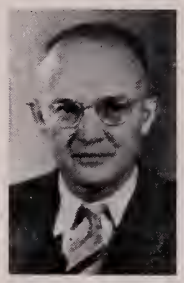
EMERGENCIES in anesthesia are situations in which the respiration or circulation of the patient has been depressed to the point at which his well-being or, too frequently, his life is in danger. That these circumstances have arisen is surely not the fault of the patient. It is apparent then that the person caring for the patient has much responsibility and that most of these situations should be prevented. Two extremely important considerations in preventing such incidents have to do with answering the questions, "Is the patient prepared for anesthesia?" and "Is the apparatus ready for use?"

CONSIDERATION OF PATIENT

To illustrate what is meant in answering the question, "Is the patient prepared?" a case may be cited of a 16 year old boy who spoke unseemingly to a much larger boy and received a broken nose for his comments. He was brought to the hospital at about midnight. The physician who set the nose asked the nurse giving the anesthetic to give just a little Pentothal. The boy was healthy and a good deal of Pentothal was required. So long as the surgeon was stimulating the patient, the boy breathed well, and at the end of surgery he seemed to be in good condition. The surgery required only about 15 minutes. However, when the boy was taken to his bed, the stimulation ceased, and it was noted within two hours that the boy had died. The case came to court, and as a result of technical factors, the hospital was adjudged the guilty party and had to pay the judgment. It would seem that the fault in this particular case lay primarily with not having the patient properly prepared. If the boy had been given proper premedication, he undoubtedly would have been quiet and relaxed enough to have gotten along on a much smaller quantity of Pentothal. After surgery he would not have been so drowsy, and the outcome should have been successful. Of course, doing such procedures with Pentothal alone is extremely undesirable because Pentothal is not an analgesic agent.



Dr. Robert W. Virtue, professor of anesthesiology, University of Colorado Medical Center, was a guest speaker at the 1957 annual session of the Texas Medical Association in Dallas. This paper was presented for the Section on General Practice, April 29.

Most anesthetic emergencies are avoidable. The physician—general practitioner or specialist—can prevent such incidents by asking himself if the patient is prepared for anesthesia and if the apparatus is ready for use. The induction of anesthesia can be extremely important. Narcotics should not be given postoperatively unless the patient can say that he is in pain.

Another question to be asked in considering whether or not the patient is prepared is, "Does this patient have an empty stomach?" Generally speaking, to assure oneself that the patient's stomach is empty, one must see that the patient has a good night's rest before surgery. Simply waiting four or six hours is not adequate. In one of our hospitals, an orthopedic resident insisted that a nurse-anesthetist give a general anesthetic to a patient who had a broken arm. She remonstrated saying that only four hours had elapsed since the injury and the stomach probably was not empty. He felt that he was giving adequate time by putting the induction of anesthesia off until eight hours after the injury. The procedure was carried out, and as the patient was emerging from unconsciousness of the anesthesia, he vomited copious quantities of gastric contents. Fortunately preparations had been made for suction and the

amount of material aspirated into the lungs was small. The patient had no severe complications, but this certainly was an unnecessary anesthetic emergency. If the patient had been allowed to sleep overnight before surgery, the stomach probably would have been empty.

Actually today few real emergencies call for immediate surgery. Perhaps a ruptured ectopic pregnancy or a ruptured spleen are exceptions, but since antibiotics are now easily available, it would not seem that a compound fracture calls for such immediate action as was the case when infection was such a serious danger.

To elaborate just a little on the statement that Pentothal is not an analgesic agent, a case of a man with a broken finger may be recounted. This man was brought to a hospital with an injury to his index finger. The operation was to be short, involving simply the manipulation and reinforcing of the position of the finger. The patient was given Pentothal intravenously; the manipulation proved to be very stimulating and a very little bit more Pentothal was given; a little more manipulation was done and a little more Pentothal was given. The patient stopped breathing and was not resuscitated. Another such situation arose when a patient in a nearby hospital was given Pentothal while a translumbar aortogram was being made. The needle gave a strong stimulus and a little more Pentothal was given; further attempts were made to insert the needle and a little more Pentothal was given each time. After several minutes, the patient's heart stopped beating. This latter man was revived after 82 minutes of cardiac massage. Neither of these emergencies needed to occur. The use of Pentothal alone when analgesia is necessary is certainly to be condemned.

A belladonna drug should be given to patients preoperatively to offset secretion of fluids into either the mouth or stomach and to give some protection against obnoxious vagal stimuli. It has been mentioned in the past that surgeons have thought that belladonna drugs were dangerous because the pulse tended to rise and the patient's temperature also may have risen. It should be pointed out in answer that an excessive reaction to belladonna drug can be offset easily with a little intravenous Prostigmin and that the margin of safety of the belladonna drugs is perhaps greater than with most of the other drugs. For example, the *Journal of the American Medical Association* carried a report a few years ago concerning a patient who had received 100 times the clinical dose of atropine but who survived. Actually the fatal dose of belladonna drugs is unknown.

One may always ask the question, "How about the patient's supply of blood?" A patient who had been premedicated with 180 mg. of Nembutal for a procedure to be done with local anesthesia was found to be cyanotic upon reaching the operating room. He was given oxygen and vasopressors but died in spite of them. It was found later that his hemoglobin had been only 8 Gm. per 100 cc. Depression of such a patient resulted fatally and, of course, was unnecessary.

Actually, knowing that the hemoglobin is 12 or 14 Gm. per 100 cc. is not a guarantee of adequate blood. It is entirely possible that blood volume may be low so that only the apparent hemoglobin concentration is normal. I know of 1 patient whose hemoglobin was 12 Gm. per 100 cc., yet he was found to have pernicious anemia and was dehydrated. After hydration the hemoglobin was 6 Gm. per 100 cc. When a patient's white blood count looks a little above normal and there is no apparent explanation for it, one should always suspect dehydration.

PREPARATION OF APPARATUS

With regard to preparation of the apparatus, it seems trite to suggest that the anesthesiologist should always test the bag and mask on himself, but there is no substitute for such testing. One can thereby test whether his apparatus is pressure tight so that he has ability to breathe for the patient; he tests to be certain the gas coming through is actually oxygen; and he tests to know whether noxious vapors from perhaps ether that had been given to the last patient are still in the machine. There is nothing that labels an anesthesiologist a liar and that excites a patient so quickly as telling him he will not be given ether and then putting on his face a mask which smells of ether. As for having oxygen ready, of course, its lack produces a dire emergency. One should always check the machine for oxygen before any sort of use.

The patient's blood pressure and pulse should be taken before starting an anesthetic. A rapid pulse gives the anesthetist an indication concerning the state of fright that may or may not exist in the patient. The blood pressure will give some information concerning the degree of depression that premedication has caused.

One other factor on the machine that should be tested is the condition of the soda lime. I had occasion to observe an incident in an operating room in which the patient's heart stopped before the surgeon had begun the operation. The surgeon resuscitated the patient, and it was observed that the soda lime in the canister was almost entirely blue. There would seem to be no question that carelessness on the part of the anesthetist had contributed to this patient's disaster.

Another piece of apparatus that should be in working order is a needle inserted for intravenous fluids before depressant drugs are given and perhaps

especially before spinal anesthetics are used. On one occasion known to me this precaution was not taken before giving the patient a spinal anesthetic. The patient's pressure dropped, and of course with a low pressure it was difficult to start an intravenous infusion. By the time it had been started, the patient had had a coronary occlusion and eventually died without having any surgery performed. The simple precaution of starting an intravenous infusion ahead of time would have permitted the anesthetist to give a vasopressor as soon as the pressure had begun to drop, and the incident could have been avoided.

In recent years two drugs that have an effect on patients who are to have surgery have come into such prominent use that a few words of caution should be given concerning them. One of these is chlorpromazine, the use of which is getting to be almost as common as the use of thiamine was a few years ago. The effects of chlorpromazine are much more deadly. Chlorpromazine potentiates the power of depressing agents, especially of the barbiturates. A patient receiving chlorpromazine should be given barbiturates cautiously. The blood pressure may drop to very low levels if the usual amounts of barbiturates are given to a patient who is on chlorpromazine therapy. To return blood pressure to normal levels in such situations may not be possible. At least 1 patient has died when a spinal anesthetic was given under these circumstances. There are several reports in the literature of situations in which it was extremely difficult to get an adequate blood pressure in such patients.

The other of these two drugs is cortisone. A patient who has been on cortisone therapy and taken off such therapy within six months prior to surgery should be watched extremely carefully. Perhaps hydrocortisone should be used for an eight hour period during and after surgery with such patients. It is worth while to question patients preoperatively to see whether such medication has been used.

Let me stress the fact that all the circumstances mentioned so far have to do with having the patient or the apparatus prepared before induction of anesthesia. Actually most anesthetic emergencies can be offset if these precautions have been taken. Certainly no anesthesiologist is essential for this to be done. Any physician in general practice can and should do the things that have been discussed so far.

ANESTHETIC CONSIDERATIONS

We might then turn to a few considerations that concern the anesthetic itself. The induction of anesthesia can be extremely important. If the patient has a full stomach, he should be intubated awake to offset the possibility of aspiration and pneumonia or death. Some people have said that this seems too hard on the patients. May it be suggested that it is easier on the patient to have a pliable tube inserted between his vocal cords than to have a bronchoscope put between them. Bronchoscopy of course is generally done without general anesthesia.

Induction done rapidly is of benefit in offsetting any excitement of the patient; on the other hand if a large quantity of Pentothal is given rapidly, it may be extremely depressing to both respiration and circulation. Several deaths perhaps not reported in the literature have occurred from rapid administration of Pentothal. In controlled studies, it has been shown that the degree of diminution of the blood pressure is in direct proportion with the rapidity of administration of Pentothal.

There would seem to be no excuse for the anesthetist's not knowing the immediate circumstances concerning the patient's respiration. A report in the *Anesthesia News-Letter* tells of a case in which the anesthetist was consulting with a roentgenologist concerning the location of pins in surgery for a fractured hip. After the consultation the anesthetist noted that the bag had stopped moving. There should be no excuse for not having one's hand on the breathing bag during examination of roentgenograms. An extra breathing tube inserted between the canister and the breathing bag will facilitate this maneuver. This "elephant trunk" is commonly used in our hospitals.

Adequate replacement of blood is essential for keeping the patient in good condition. It is much easier to replace blood as it is lost than to try to get a patient out of shock after excessive loss has occurred.

Another consideration is that of giving relaxing agents. If they are given only while the patient is breathing, they are reasonably safe. If one gives them continuously or in a drip while the patient is not breathing, he is courting the danger of prolonged apnea or worse.

A factor of considerable importance that does not have to do particularly with anesthesiologists is that of local anesthesia. It should be remembered that 1 Gm. per hour of procaine or 500 mg. per hour of Xylocaine are the upper accepted limits to avoid untoward reactions to local anesthesia. If the reader does not immediately know how much this is in terms of 1 or 2 per cent procaine or in terms of ½ or 1 per cent Xylocaine solutions, it would be a good thing for his future patients if he would immediately calculate this amount and keep the results in mind. I was called in on a court case in which a man was being tried for murder because injuries that he was accused of inflicting were said to have caused the death of the patient. Actually the patient died of convulsions following an overdose of local anesthetic agent.

POSTOPERATIVE CARE

We will pass then to a few words about postoperative care of the patient. It is unfortunate that a common postoperative position leaves the patient supine. It is much more desirable, as pointed out by MacIntosh about seven years ago, that the patient be in a lateral position with the lower arm behind him and the upper knee flexed. The head should be dependent rather than on a pillow. Such a position would tend to avoid the deaths that have occurred from asphyxia due to the tongue occluding the airway or due to aspiration of stomach contents. One other factor that has given trouble postoperatively is in the free administration of morphine or Demerol or other depressant drugs. It is my opinion that restlessness per se should not be treated with these drugs. The only excuse for giving opiates is for circumstances in which the patient can say that he is in pain. If he cannot tell the recovery room personnel that he is actually having pain, his restlessness is more likely due to hypoxia. Opiates will only enhance the trouble rather than alleviate it.

SUMMARY

Although resuscitation of patients undergoing anesthetic emergencies is satisfying and dramatic, emphasis should be placed on factors which will prevent their occurrence. Proper preparation of the patient for surgery and proper preparation of the anesthetic equipment will eliminate a large proportion of such difficulties.

Narcotics should not be administered postoperatively unless the patient can say that he is in pain. Restlessness per se is not an indication for depressant drugs.

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Ear Wax Cause of Swimmer Problems

Wax in a swimmer's ears—particularly in only one ear—may lead to serious or even dangerous consequences, a Philadelphia otolaryngologist has said. Dr. Albert P. Selzer, writing in the May *Archives of Otolaryngology,* says that dizziness sometimes occurs when a person swims in cold water which enters his ears and causes abnormal activity in the ears' labyrinths.

The dizziness may lead to an inability to tell the position of the body, panic, and even drowning, Dr. Selzer adds, stating that dizziness is especially likely to occur when only one ear is clogged with wax. Cold water cannot reach this ear's labyrinth, does reach that of the unclogged ear, and two different, unbalanced reactions are set up. The same situation occurs when cold air reaches the labyrinth of only one ear.

Mechanical Heart Lung For Temporary Cardiopulmonary By-Pass

Report of 95 Cases

DENTON A. COOLEY, M. D.; BENJAMIN A. BELMONTE, M. D.; MICHAEL E. DeBAKEY, M. D.; and JOSEPH R. LATSON, M. D.

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DURING the past decade developments in cardiac surgery have been rapid and often spectacular, and as a result, many corrective procedures are now available for diseases which previously were incurable. Although the need for open cardiac conditions

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Only recently has an efficient and safe method of extracorporeal circulation in surgical treatment of cardiac lesions become clinically available. Using a mechanical heart lung or pump oxygenator with two synchronized pumps and an oxygen diffusion or bubble type oxygenator, 95 patients were operated upon for cardiopulmonary by-pass, with gratifying results. Further experience will greatly improve methods of surgical treatment of congenital and acquired cardiac diseases.

for direct vision of the actual lesion has long been recognized, until the past few years cardiac surgery consisted only of those procedures which did not require interruption of cardiac function. Two methods of obtaining open cardiac conditions have been devel-

This study was supported in part by the Houston Heart Association.

oped recently, one consisting of induced general body hypothermia and the other of temporary extracorporeal circulation for cardiopulmonary by-pass.

Although early results with hypothermia and brief periods of cardiac inflow occlusion for repair of simple intracardiac defects were impressive, certain disadvantages of the method limited its safety and usefulness for more complex lesions. Fortunately, the development within the past two years of effective pump oxygenators for temporary cardiopulmonary substitute at last has provided a relatively safe means of operating directly upon the heart while its function is being performed mechanically. Thus, a new and powerful stimulus has arisen in this field, which promises to broaden greatly the scope of cardiovascular surgery.

Although others had performed experiments in temporary extracorporeal circulation, interest was first focused on this problem by Gibbon,[2] who since 1939 has devoted much effort toward development of a pump oxygenator suitable for clinical application and in attempts to control certain complicating factors inherent in artificial perfusion of blood. Finally in 1953 Gibbon[3] utilized his pump oxygenator successfully in a patient with interatrial septal defect. Meanwhile Lillehei and his associates[5] demonstrated in 32 patients that controlled cross circulation between a living donor and a patient could be used to achieve open cardiac conditions. Although this method was not altogether practical, it demonstrated clearly that patients would tolerate open cardiotomy for periods up to 30 minutes and that perfusion rates of 20 per cent of normal basal cardiac output sustained life under these circumstances. Kirklin and his associates[4] modified Gibbon's rather complicated and cumbersome apparatus and obtained impressive results in some 40 patients using a completely mechanical system for oxygenating blood, thus eliminating the need for a living donor. In 1955 DeWall and Lillehei[1] developed a simple expendable oxygenator based upon the bubble diffusion principle, and using this relatively simple oxygenator in an extracorporeal circuit with reduced flow rates demonstrated convincingly that a mechanical heart lung for cardiopulmonary by-pass was clinically practical as well as effective.

Experiments in our laboratory with pump oxygenators began two years ago, and this report is concerned with a description of the apparatus currently in use for cardiopulmonary by-pass and the results in 95 cases of cardiovascular disease.

METHOD

By-pass of the heart and lungs is obtained by removing venous blood from the vena cava, pumping it through an oxygenator and back into the arterial system (fig. 1). Plastic catheters are inserted through the right auricular appendage into the superior and inferior vena cava for collection of venous blood, and oxygenated blood is returned through a plastic catheter inserted in a femoral artery. Two pumps are used to substitute for the right and left ventricles, and these must be equilibrated so that each delivers the same rate of flow. Sigmamotor pumps which are calibrated to deliver between 35 and 50 cc. of blood

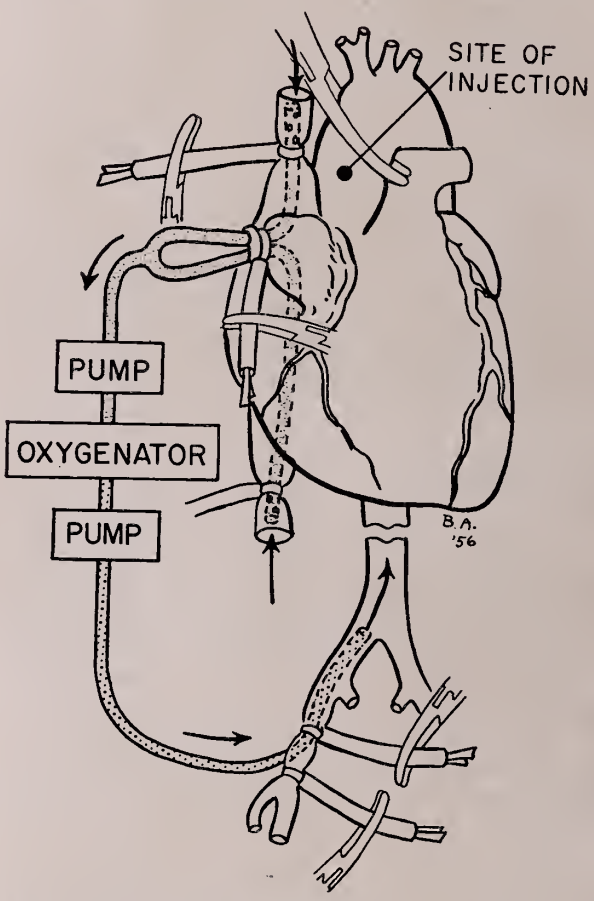

Fig. 1. The diagram shows the method of cannulation of the vena cava and femoral artery in performing cardiopulmonary by-pass using a pump oxygenator. Induced cardiac arrest may be obtained by injection of dilute potassium citrate solution in the ascending aorta.

per kilogram of body weight per minute are used, and flow rates up to 2,900 cc. per minute have been employed.

After the cannulations in the venous and arterial systems have been performed, the pumps are started and tapes about the cava are tightened to interrupt cardiac inflow. The heart continues to contract forcefully because of the normal coronary flow, but complete cessation of cardiac activity may be induced by injection of dilute potassium solutions into the coronary circulation. For this purpose an occluding clamp

is placed on the ascending aorta, and potassium citrate, 2.5 per cent solution, is injected slowly in the proximal aorta until myocardial activity ceases (fig. 1). Cardiotomy then may be performed and intracardiac procedures carried out in a quiet and almost bloodless field. When the ascending aorta is reopened, the potassium solution is perfused out of the coronary circulation, and myocardial contractions return without the use of stimulants.

Oxygenation of the blood in the extracorporeal system is obtained in a modified DeWall-Lillehei oxygenator, which is composed of a series of disposable plastic tubes arranged so that oxygen is first diffused through the blood and then excess oxygen bubbles are eliminated from the oxygenated blood (fig. 2). Oxygen flows into the oxygenating column at a

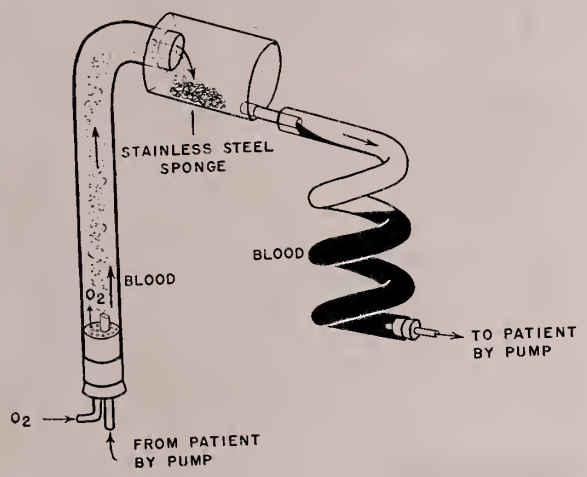

Fig. 2. This diagram shows the components of the bubble type oxygenator consisting of an oxygen diffusion column, defoaming chamber, and collecting system.

rate approximately 10 times the flow of blood. At the top of the column the foamed blood is directed over a stainless steel sponge coated with a silicone antifoaming substance which converts the blood back into a liquid state. Carbon dioxide is eliminated simultaneously, and the blood is 95 to 100 per cent oxygenated. The blood is collected in a coiled tube and then returned to the patient at a fixed rate of flow.

Blood for filling the system before cardiopulmonary by-pass is collected from donors with compatible blood type on the morning of operation. Siliconized 500 cc. bottles are used containing 15 ml. of heparin solution as an anticoagulant. The patient likewise receives heparin systemically 1.5 ml. per kilogram of body weight to render the entire blood circuit temporarily incoagulable. At the completion of the perfusion, the heparin effect is counteracted by equal amounts of protamine sulfate.

RESULTS

Prior to December 21, 1956, a total of 95 patients underwent cardiopulmonary by-pass, mostly for congenital cardiac defects (table 1). Among these patients there were 25 early deaths, occurring within

TABLE 1.—*Cardiovascular Lesions Operated upon Using Cardiopulmonary By-Pass.*

	No. Cases
Ventricular septal defect	49
Atrial septal defect	13
Tetralogy of Fallot	7
Aneurysm of aortic arch	5
Atrioventricularis communis	4
Pulmonic stenosis	4
Aortic stenosis	2
Transposition of great vessels	2
Aorticopulmonary septal defect	2
Ruptured ventricular septum (coronary)	1
Ruptured tricuspid valve (trauma)	1
Ruptured aneurysm sinus Valsalva	1
Single ventricle	1
Aortic regurgitation (congenital)	1
Endocardial fibroelastosis	1
Aortoventricular fistula (traumatic)	1
Total	95

the first two weeks after operation usually in the first 24 hours, and 3 late deaths, occurring as much as two months after operation, giving a total mortality of 29.5 per cent (table 2). In evaluating these results,

TABLE 2.—*Mortality in Operations Performed with Cardiopulmonary By-Pass.*

	No. Cases	Mortality Early	Mortality Late	Mortality Total
Ventricular septal defect	49	8	0	8
Atrial septal defect	13	2	0	2
Tetralogy of Fallot	7	3	0	3
Aneurysm of aortic arch	5	3	1	4
Atrioventricularis communis	4	3	0	3
Pulmonic stenosis	4	0	0	0
Miscellaneous	13	6	2	8
Total	95	25	3	28

full consideration must be given the circumstances under which operation was undertaken. Many of the patients, for example, were in advanced stages of chronic cardiac failure at the time of operation, and the surgical attempt was made as a final resort. Moreover, in several patients surgically incorrectible anomalies such as endocardial fibroelastosis and complicated defects of the cardiac septums of the atrioventricularis communis type were encountered at cardiotomy. Actually operation was not denied to any patient in whom surgical repair of the cardiac lesion seemed possible regardless of the apparent high risk.

A meaningful impression of the results with cardiopulmonary by-pass may be gained by scrutiny of

the results in various categories. As noted in table 2 there were 49 cases of congenital ventricular septal defect with 8 deaths, a surgical mortality of 16.3 per cent. Five of the 8 deaths occurred in infants less than 2 years of age, and most of these were critically ill at the time of operation. Associated congenital anomalies were present in more than half of the patients with ventricular septal defect including aortic regurgitation, tricuspid regurgitation, corrected transposition of the great vessels, overriding aorta, and many others. Pulmonary hypertension was moderate to severe in more than half of the patients before operation. Thus, survival of 41 patients with ventricular defects is indeed gratifying. Furthermore, the survival and clinical cure of 11 patients with atrial septal defects indicates that cardiopulmonary by-pass can be performed with acceptable risk, particularly when one considers that the 2 fatalities occurred in older patients with severe cardiac disability. Equally gratifying results have been obtained in patients with pulmonic stenosis, aortic stenosis, aorticopulmonary septal window, aortoventricular fistula produced by a penetrating injury, and many other defects. In 5 patients recovery has followed procedures in which more than one cardiac chamber was opened for repair of multiple defects demonstrating the tolerance of the heart to more extensive reconstructive attempts.

SUMMARY

Alhough the need for an efficient and safe method of extracorporeal circulation in surgical treatment of cardiac lesions has long been recognized, only recently have such techniques become clinically available. Development of a mechanical heart lung or pump oxygenator which utilizes two synchronized pumps and an oxygen diffusion or bubble type oxygenator is described.

Ninety-five patients have been operated upon using this apparatus for cardiopulmonary by-pass. Among 49 patients with ventricular septal defects there were 41 survivors, and 11 out of 13 patients with atrial defects survived. As experience increases with this revolutionary new technique, better results unquestionably will be obtained, thus providing greatly improved methods of surgical treatment of congenital and acquired cardiac diseases.

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Acute Nonspecific (Idiopathic) Pericarditis

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ACUTE benign nonspecific (idiopathic) pericarditis was first described in 1854. Sir William Osler mentioned the disease in the second edition of his "Principles and Practice of Medicine" in 1895. However, widespread clinical recognition was to wait until 1942 when Barnes and Burchell focused attention on this type of pericarditis and stressed the importance of distinguishing it from myocardial infarction.[1] In the past 15 years the disease has been extensively studied and documented.

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Although idiopathic pericarditis histologically is the most common type of pericarditis, it is still not being sufficiently diagnosed clinically. Chest pain is an outstanding symptom and pericardial friction rub a main sign. Electrocardiographic series are important in diagnosis. Therapy consists chiefly of bed rest, analgesia, and other symptomatic and supportive measures. Prognosis is excellent.

The etiology and pathogenesis of benign nonspe-

cific pericarditis are unknown. For this reason, I prefer the term idiopathic pericarditis to the many other designations, such as viral pericarditis, recurrent pericarditis, primary pericarditis, and cryptic pericarditis. Idiopathic pericarditis involves the parietal and sometimes the visceral pericardium. The disease is probably spread by extension through lymphatic channels from the upper respiratory passages or directly from the lungs.[14] There has never been any clear demonstration of an underlying inflammatory process, metastasis, or chronic disease.[5] It has been postulated that acute idiopathic pericarditis may be an allergic or sensitizing reaction. Cases have been reported after diphtheria or tetanus antitoxin.[14] Some think it may be an antigen-antibody reaction with sensitization of the pericardium and subsequent inflammatory reaction on exposure to bacteria.[15]

Clinical recognition of the incidence of all types of pericarditis lags far behind the pathologic evidence of pericarditis as shown by autopsy. This has been demonstrated in all autopsy series. In the largest recent reported series (23,288 consecutive autopsies), 15.8 per cent of cases of pericarditis were idiopathic.[11] In contrast, rheumatic pericarditis represented only 13.8 per cent of the cases, septicemic (pyogenic) pericarditis 10.4 per cent, tuberculous pericarditis 6.9 per cent, uremic pericarditis 14.8 per cent, and pericarditis secondary to acute myocardial infarction 10.4 per cent. Other rare causes of pericarditis include that due to Streptothrix, amebiasis, granulomatous diseases, hemorrhage, and trauma. Thus, despite a general unawareness of its high incidence, idiopathic pericarditis is the most common type of pericarditis.

SYMPTOMS AND SIGNS

The clinical picture of idiopathic pericarditis is usually distinct. The average patient is 30 to 35 years in age, the peak incidence being in the second to the fourth decade, but idiopathic pericarditis may occur occasionally after age 50 and can occur at any age.[8, 10, 14, 19, 20] In 60 to 85 per cent of cases there is an antecedent upper respiratory infection which precedes pericarditis by an average of 10 days.[8, 14, 19, 20] Onset of pericarditis is almost always acute, and there is frequently an associated pneumonitis or pleuritis.[7] There are no accompanying signs of "rheumatism" such as joint manifestations.[5]

The outstanding symptom of pericarditis is chest pain, which is present at the onset of the illness. Chest pain usually becomes continuous and invariably requires narcotics for relief for the first 24 to 72 hours. Pain may be localized anywhere in the chest and is variable in its characteristics. Pain radiates in order of decreasing frequency to the left shoulder, right shoulder, neck, and back. Because of the high incidence of associated pleuritis and pneumonitis (and possibly mediastinitis), an associated pleurisy is almost the rule.[19] Severe chest pain usually lasts one, two, or occasionally three days. Pain is accentuated by coughing, deep breathing, swallowing, or movements of the trunk. It is not affected by exercise, rest, or nitroglycerin. The variability of the location, severity, and characteristics of the chest pain is important in the differential diagnosis of pericarditis, particularly in the differentiation from myocardial infarction.

The pericardial friction rub is the most important sign of pericarditis. It is earlier, more consistent, and of greater intensity than the friction rub of myocardial infarction.[8] If the patient is frequently and carefully examined, the rub will be heard in from 26 to 75 per cent of cases.[8, 12, 17, 19] When the physician is listening for a friction rub, it is helpful to have the patient breathe slowly and deeply, as the rub may be heard easily in certain phases of respiration and may be completely inaudible in others. Most commonly it is heard immediately to the left of the lower sternal border or just medial to the apex.[19] Rarely, the rub may be heard over the entire back and precordium. The rub is usually a classic to-and-fro rub[5] and may be scratchy, squeaky, or harsh.[19] It usually occurs within the first 36 hours of the illness and tends to be transient, usually disappearing within 12 to 24 hours.[15]

There is usually some degree of dyspnea, but orthopnea is rare. The patient almost always will assume an upright position, leaning forward.[17, 20] This is in marked contrast to the patient with myocardial infarction, who usually prefers to lie quietly or to prop up if he is orthopneic. The preference for the upright position, leaning forward, possibly may be because of mechanical compression of the bronchi and lungs and splinting of the chest wall due to pain.[20]

Tachycardia of some degree will occur in essentially 100 per cent of patients.[14, 17] In one series[19] 13 of 23 patients had a pulse rate of more than 100 per minute, and 6 of the 23 had a pulse rate of more than 120.

The absence of fever is rare. As a rule the temperature is 100 to 102 F.[8, 10, 14, 15, 17, 19, 20] and usually fever lasts only a few days. It should be emphasized that fever and the friction rub usually occur in the first few hours of the illness in contrast to myocardial infarction in which the rise in temperature and appearance of a friction rub are usually delayed several days.

Physical examination may reveal an apparent increase in heart size. This may be due to either pericardial effusion[9] or cardiac dilatation or a combination of both. Fluid usually is demonstrable in the

pericardium, especially in its posterior portion. Occasionally there is enough fluid to cause pressure on the lower left lobe of the lung to produce Ewart's sign, that is, slight to marked dullness at the angle of the left scapula or even over the lower one-third or one-half of the left side of the back.[5] Rarely, pericardial effusion will be sufficiently massive to produce cardiac tamponade with such accompanying signs as engorged neck veins and paradoxical pulse.[12] If there is accompanying pneumonitis or pleuritis (5 of 23 patients in one series[19]), bronchial breath sounds, bronchophony, and rales may be heard.

It is difficult to determine where pericarditis stops and myocarditis begins. The presence of arrhythmia, gallop rhythm, alterations in blood pressure, pulsus alternans, hepatomegaly, angina, and congestive heart failure in a very small percentage of patients suggests myocarditis or other more serious cardiovascular disease.[17]

COMPLETE EXAMINATION

Laboratory Studies.—There is usually a leukocytosis in the range of 10,000 to 20,000 leukocytes per cubic millimeter.[20] In one series of 23 cases the leukocyte count was more than 10,000 in 15 cases, but no counts were more than 20,000.[19] The leukocyte count may be normal in a small percentage of cases, but leukopenia is rare.[19] Otherwise, a complete blood count and differential smear is not helpful. The sedimentation rate is elevated in about 85 per cent of cases[14] and is usually the last value to return to normal.[20] The antistreptolysin titer is negative.[15]

Electrocardiogram.—The electrocardiogram in idiopathic pericarditis is characteristic and may be diagnostic in itself. In one series of 130 cases of idiopathic pericarditis[12] the electrocardiogram was diagnostic in 35 cases and strongly suggestive in 46 cases. In 15 cases no electrocardiogram was taken, and in only 7 of the 130 cases was a normal electrocardiogram obtained. In these 7 cases possibly changes were not observed because of the lack of sufficient electrocardiograms.

Characteristic changes in the ST segments are due to subepicardial myocarditis.[15, 22] ST elevation will be seen in approximately 95 per cent of cases of idiopathic pericarditis within a few hours after its acute onset.[17] It occurs in at least one lead, all leads, or only in leads 1 and 2 or 2 and 3, with or without ST elevation in the precordial leads.[15] In contrast to the ST of myocardial infarction, in which the ST segment is usually *convex* upward, the ST segment of pericarditis is *concave* upward, though rarely it may be rectilinear.[15] There are never reciprocal ST changes *early* in idiopathic pericarditis.[15, 17] Rarely in later stages the ST segment may not be concave upward, but depressed, and the T wave coved as in myocardial infarction.[20] This will not be confusing if serial tracings have been obtained, and previous tracings are therefore available for comparison. Serial tracings are imperative in equivocal cases and in cases in which there is a possibility of myocardial infarction and are helpful in evaluating small elevations of the ST segment. In very mild cases of pericarditis of short duration the electrocardiographic changes may not be demonstrable.

Early, T waves are upright and pointed and may be abnormally tall.[14, 15] The T wave tends to be more peaked, pointed, and higher in general than the T wave of myocardial infarction.

Approximately one week after the acute onset of idiopathic pericarditis, the T wave becomes inverted, but the important point is that T wave inversion is not often present until the ST segment has returned to the iso-electric line.[8, 12] This usually requires one to seven days.[15, 20] Changes in the T waves may fluctuate day to day,[15] and this again emphasizes the importance of serial electrocardiograms if pericarditis is suspected. Although T waves usually remain inverted only 10 to 14 days, T wave inversions may persist much longer than ST segment elevations and may require months to return to normal.[15, 20] In very mild cases of short duration, T wave inversion may not develop.[3]

In uncomplicated idiopathic pericarditis there is no prolonged PR interval or other evidence of heart block in the electrocardiogram. This is in contrast to rheumatic fever.[5, 15, 17] There are no Q wave changes, although, of course, there may be previous "normal" Q waves present in the electrocardiogram. There are no premature ventricular contractions, arrhythmias, or supraventricular tachycardias.[5, 18] Usually the electrocardiogram has begun to return to normal within one to six weeks.[18] In general the electrocardiogram as a whole is normal in four to eight weeks.[15] This is an important differential point from myocardial infarction in which electrocardiographic abnormalities may persist indefinitely. Rarely, the electrocardiographic changes in pericarditis do not return to normal.[3, 4]

Roentgenogram.—Roentgenologic studies indicate that in a large percentage of cases of idiopathic pericarditis the cardiac silhouette is increased in size. This increase has been reported in 26 to 67 per cent of patients in various series.[8, 12] The heart shadow is usually globular in shape and tends to enlarge over a period of 7 to 10 days and may assume immense proportions.[13] It is controversial whether the enlargement of the cardiac shadow is due to pericardial effusion or to cardiac dilatation or to a combination of these factors. The large heart size, returning to normal size quickly, and the clear lung fields suggest peri-

cardial effusion.[8] There is probably some pericardial effusion in most, if not all, cases of idiopathic pericarditis, but it may not be demonstrable by roentgenogram. Less often, there is roentgen-ray evidence of pneumonitis and, in a few patients, a small to moderate sized pleural effusion.[14]

DIFFERENTIAL DIAGNOSIS

In a differential diagnosis of idiopathic pericarditis, many points of difference already have been noted. Differentiation from myocardial infarction is especially important as prognosis of infarction is infinitely more serious. In Logue and Wendkos' series of 17 cases[15] the diagnosis of myocardial infarction was made six times originally.

As previously noted, patients with idiopathic pericarditis are usually younger than those with myocardial infarction. The early (within 36 hours as a rule) appearance of fever, leukocytosis, increased sedimentation rate, and pericardial friction rub is strongly suggestive of pericarditis and not myocardial infarction, in which these changes are usually delayed several days. In idiopathic pericarditis early chest pain is an important symptom. The electrocardiogram in idiopathic pericarditis begins to return to normal in days or weeks, and not weeks or months or indefinitely as in myocardial infarction. In myocardial infarction there may be gallop rhythm, alterations in blood pressure or actual shock, congestive heart failure, or supraventricular or ventricular tachycardias. These are extremely rare in idiopathic pericarditis. The patient with myocardial infarction does not sit up and lean forward. His pain is centered in the midline and is described in different terms than that of idiopathic pericarditis. The pain of myocardial infarction is not accentuated by movement, coughing, swallowing, or respiration. The pericardial friction rub of myocardial infarction is delayed several days, lasts only a few days as a rule, and rarely recurs when it once disappears. If a friction rub occurs before there are changes in the electrocardiogram, the odds are 100 to 1 that pericarditis, and not infarction, is present.

Tuberculous pericarditis is characterized by its often more painless and gradual onset with associated weakness, night sweats, fever, and weight loss. Tuberculous pericarditis usually has a slowly forming, massive pericardial effusion and often edema and ascites. There are associated pulmonary findings in most cases and toxicity. Within a few weeks there is complete recovery from idiopathic pericarditis, but tuberculous pericarditis runs a more severe course and generally terminates fatally.

Rheumatic pericarditis shows associated signs of rheumatic involvement, such as erythema marginatum, erythema multiforme, subcutaneous nodules, and evidence of myocarditis and arthritis. There are cardiac murmurs with evidence of involvement of the mitral or aortic valves and occasionally congestive heart failure. Atrioventricular conduction defects such as first or second degree atrioventricular block are never seen in idiopathic pericarditis. Usually the pericarditis of rheumatic fever runs a more protracted course and will respond to salicylate or steroid therapy.

Uremic pericarditis should be easily differentiated by the elevated blood urea nitrogen level and the associated signs and symptoms of renal disease and failure.

Idiopathic pericarditis is a diagnosis of exclusion, which should not be made until other etiologies of pericarditis are definitely eliminated from consideration.

THERAPY AND PROGNOSIS

Bed rest and symptomatic and supportive measures are adequate therapy. Antibiotics are probably of no value.[14, 15, 17] The broad spectrum antibiotics might be considered if the patient has persistent or recurrent attacks of pericarditis.[5, 20, 21] Anticoagulants are contraindicated.[8] In most cases narcotics will be required to control the excruciating chest pain. Pericardicentesis is indicated only if there is definite evidence of cardiac tamponade.[6] Steroid therapy is of no proven value.

After the initial phase, the question will arise as to the appropriate time to ambulate the patient. The best rule is to be guided by clinical evidence and ignore the electrocardiogram as there may be electrocardiographic evidence of pericarditis for several weeks or, rarely, months after the patient is completely asymptomatic. As there is a marked tendency for idiopathic pericarditis to recur, it is wise to err on the side of caution in ambulating these patients, particularly those with recurrent attacks. Congestive heart failure is rare and should be treated in the usual manner.

Many recent reports[3, 8, 10, 19, 22] have stressed the recurrent nature of idiopathic pericarditis. Tomlin, Logue, and Hurst have reported a patient who had 19 attacks of acute idiopathic pericarditis.[22] I know a patient who had approximately 15 major attacks of idiopathic pericarditis in an 18 month period. Combining 13 series reported since 1946[22] reveals 47 recurrences in a total of 253 patients reported. This is an 18 per cent incidence of recurrence.

Prognosis of idiopathic pericarditis is excellent.[2, 4, 5, 14, 19] Death is extremely rare (I was able to find only 2 cases in the literature), and it is difficult to understand why anyone ever dies from

this disease. One of these fatalities was due to hemorrhage and cardiac tamponade following the use of anticoagulants.[16] The other patient apparently died of intractable congestive heart failure.[19] Recovery occurs in 2 to 12 weeks, usually in three or four weeks.[9] However, time of recovery is variable, from a few days to as long as four months. Carmichael and others[4] followed 50 cases for at least two years and found no cases of constrictive pericarditis. However, in 6 of the 50 cases there were residual electrocardiographic changes. The only anatomic change demonstrable, however, was an asymptomatic calcification of the pericardium in 1 patient, and in this patient there was no evidence of impaired myocardial function. Brown[2] followed a series of 13 patients, all observed for at least 18 months, 6 being observed three years or longer. At the end of this period all patients were asymptomatic, and each had a normal heart on physical examination. There were no murmurs demonstrable; heart shadows were normal by roentgenogram; and all electrocardiograms were normal. Reid and others[19] followed 23 patients an average of five and a half years, after which no patient had evidence of heart disease.

In a disease of such excellent prognosis and such rare mortality, there has been little opportunity for histologic study. Pericardicentesis has revealed an exudate which is serous, serofibrinous or serosanguineous, but never purulent.[8, 14] Differential staining of the exudate reveals many cells consisting of 80 to 95 per cent lymphocytes.[10] Total protein ranges from 4.5 Gm. per 100 cc. to 6.0 Gm. per 100 cc.[10] Biopsy of the pericardium has revealed only nonspecific inflammatory changes of an organizing nonspecific pericarditis.[19]

SUMMARY

Idiopathic pericarditis is a disease of unknown etiology. Although histologically it is the most common type of pericarditis, it is still not being sufficiently diagnosed clinically. Idiopathic pericarditis is usually preceded by an upper respiratory infection, and accompanying pneumonitis and pleuritis are common. The outstanding symptom of pericarditis is chest pain. The outstanding sign is the pericardial friction rub.

In contrast to myocardial infarction, the friction rub, fever, leukocytosis, and increased sedimentation rate of idiopathic pericarditis occur early in the course of the disease. In the differential diagnosis of idiopathic pericarditis the factors which accentuate chest pain, such as coughing, breathing, swallowing, and movements of the trunk are more important than the location, severity, and characteristics of the chest pain. The electrocardiogram in idiopathic pericarditis is characteristic and may be diagnostic in itself. Electrocardiographic changes of pericarditis are almost always present if repeated electrocardiograms are taken. In the differential diagnosis of idiopathic pericarditis from myocardial infarction distinguishing electrocardiographic characteristics are particularly important.

Therapy of idiopathic pericarditis consists chiefly of bed rest, analgesia, and other symptomatic and supportive measures. Antibiotics, steroid therapy, salicylates, and anticoagulants are of no proven value or are contraindicated. Idiopathic pericarditis has a marked tendency to recur (in 18 per cent of patients in a recent series). Prognosis of idiopathic pericarditis is excellent; death and significant residual abnormalities are rare.

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MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-23, 1958 (Executive Council, Sept. 8, 1957). Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, New York, June 3-7, 1957. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

June

American Neurological Association, Atlantic City, June 17-19, 1957. Dr. H. Houston Merritt, New York 32, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Carmel, Calif., June 17-19, 1957. Dr. Daniel C. Darrow, Mission, Kan., Pres.; Dr. A. C. McGuinness, 1427 I St., N.W., Washington 5, D. C., Secy.

Texas State Board of Medical Examiners, Fort Worth, June 24-26, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

July

American Congress on Maternal Care, Chicago, July 8-12, 1957. Dr. F. Bayard Carter and Dr. Samuel B. Kirkwood, 116 S. Michigan Ave., Chicago 3, Co-Chm.

Fifth and Sixth Districts Society, Corpus Christi, July 5-6, 1957. Dr. James C. Sharp, Corpus Christi, Pres.; Dr. Winston E. Riley, 2400 Morgan, Corpus Christi, Secy.

Twelfth District Society, July 9, 1957. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 15-17, 1957. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. W. B. Sherman, New York, Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of General Practice, Dallas, Spring, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Grosse Point 30, Mich., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Thoracic Surgery. Dr. Cameron Haight, Ann Arbor, Mich., Pres.; Dr. Hiram T. Langston, 600 S. Kings Highway, St. Louis 10, Mo. Secy.

American Association of Genito-Urinary Surgeons. Dr. Archie L. Dean, New York, Pres.; Dr. John A. Taylor, 2 E. 54th St., New York 22, Secy.

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Merle Moore, Portland, Ore., Pres.; Dr. David Thomas, 1467 Harper St., Augusta, Ga., Secy.

American College of Chest Physicians. Dr. Herman J. Moersch, Rochester, Minn., Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology, Boston, Oct. 20-23, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5-8, 1958. Dr. Ira H. Lockwood, Kansas City, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.

American Gastro-Enterological Association. Dr. Sam A. Wilkinson, Jr., Boston, Pres.; Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secy.

American Gynecological Society. Dr. Norman F. Miller, Ann Arbor, Mich., Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Heart Association, Chicago, Oct. 25-29, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N Y., Secy.

American Ophthalmological Society. Dr. Frederick C. Cordes, San Francisco, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E. Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association. Dr. Francis J. Braceland, Hartford 2, Conn., Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

American Surgical Association. Dr. Loyal Davis, Chicago, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association. Dr. George C. Prather, Brookline, Mass., Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, Interim Meeting of Delegates, Oct. 18, 1957. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association. Dr. Howard W. Bosworth, Los Angeles, Pres.; Mrs. Morrell DeReign, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 20-21, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.

Southwestern Medical Association, El Paso, Oct. 9-11, 1957. Dr. Celso Stapp, El Paso, Pres.; Dr. Russell L. Deter, 1501 Arizona St., El Paso, Secy.

Southwestern Society of Nuclear Medicine. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress. Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Assemhly, Shreveport, Sept. 12-13, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Brady, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to memhers.

Texas Air-Medics Association, Houston, April, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Ohstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Puhlic Health Physicians. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Cluh of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society, El Paso, Oct. 12, 1957. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diahetes Association. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Geriatrics Society, Houston, April, 1958. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Industrial Medical Association, Houston, Sept. 26-28, 1957. Dr. Rohert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neuropsychiatric Association, Dallas, Oct. 18-19, 1957 (with Central Neuropsychiatric Association). Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.

Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Puhlic Health Association, Dallas, Feh. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Texas Society of Anesthesiologists. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.

Texas Society of Pathologists. Dr. Lloyd Hershherger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.

Texas Society of Plastic Surgeons. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, Waco, Oct. 7-8, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, 2406 Manor Road, Austin, Executive Director.

Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

United States-Mexico Border Puhlic Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.

Second District Society. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rhumbo, Box D, O'Donnell, Secy.

Third District Society, Amarillo, Spring, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.

Seventh District Society. Dr. Robett N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.

Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liherty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.

Eleventh District Society. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.

Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. John D. Gleckler, 211 N. Fannin, Denison, Chm.

Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

New Orleans Graduate Medical Assemhly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

State Tumor Conference, Wichita Falls. Dr. Edwin C. Bebh, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

Texas Industrial Medical Association

The Texas Industrial Medical Association will hold its fall meeting in Houston September 26-28, in association with the Tenth Gulf Coast Conference on Health in Industry and Business. The next spring meeting will be as a related society to the Texas Medical Association.

These decisions were made when the group met in Dallas April 30. Highlight of the session was a tour of the Chance-Vought Aircraft plant, where the working environment and its favorable influence by plant management and a medical department was observed.

Officers of the association for 1957-1958 are Dr. Robert J. Potts, Dallas, president; Dr. W. H. Hamrick, Houston, president-elect; Dr. Max E. Johnson, Austin, vice-president; and Dr. Robert A. Wise, Houston, secretary-treasurer. New members on the executive board are Dr. V. C. Baird, Houston; Dr. W. L. Wilson, Austin; and Dr. J. G. Burdick, Pasadena.

Texas Geriatrics Society

Meeting during the annual session of the Texas Medical Association, the Texas Geriatrics Society voted to merge with the Texas Gerontological Society. Salient points of the new constitution were agreed upon, and the society voted that the next meeting of its medical group again be held in conjunction with that of the TMA, while its lay group would meet at another time.

Dr. Martin S. Buehler, Dallas, was installed as president. Elected were Dr. Frederick G. Dorsey, Houston, president-elect; Dr. Ernest Keil, Temple, vice-president; and Dr. J. O. Armstrong, Dallas, secretary.

Texas Neuropsychiatric Association

The Texas Neuropsychiatric Association endorsed the actions of the Committee on Mental Health of the Texas Medical Association in its approach to the question of certification of psychologists at its April 28 meeting in Dallas. The group also made plans for a joint session with the Central Neuropsychiatric Association in Dallas on October 18-19.

New officers of the association are Dr. Bruce H. Beard, Fort Worth, president; Dr. S. R. Snodgrass, Galveston, president-elect; Dr. William A. Cantrell, Houston, vice-president; and Dr. Clarence S. Hoekstra, Dallas, secretary-treasurer.

Texas Ophthalmological Association

Sixty-eight members of the Texas Ophthalmological Association were present during its business session, held April 30 at the Hotel Adolphus in Dallas. Presiding was Dr. Thomas J. Vanzant, Houston, president, who with other officers of the group was elected for a two-year term when the association was organized last year. The program followed the schedule outlined in the convention program.

The group adopted resolutions (1) to cooperate in formation of a board for certification of ophthalmic technicians, (2) to approve a program for screening school children for eye defects, (3) to oppose a statement of ethics for ophthalmic surgeons issued by the American College of Surgeons, and (4) to oppose issuance of a certificate in ophthalmic surgery by the American Board of Ophthalmology.

Texas Dermatological Society

An October 12 meeting in El Paso was set by the Texas Dermatological Society when it held its spring meeting April 28-29 in Dallas. Forty-nine members and 13 guests were in attendance.

During the meeting, a clinic was held in the out-patient department of Baylor Hospital; 24 patients were presented.

Elected president was Dr. Charles D. Stewart, Corpus Christi. Dr. J. B. Richardson, Houston, was named vice-president; Dr. Edmund N. Walsh, Fort Worth, reelected secretary-treasurer; and Dr. Eugene Schoch, Austin, reappointed program chairman. Dr. B. J. Fett, Port Arthur, was elected to associate membership.

Texas Orthopedic Association

Five Texas doctors were elected to membership in the Texas Orthopedic Association during its April 29 meeting in Dallas' Adolphus Hotel. They are Dr. Charles E. Ratliff, Lubbock; Dr. Loring Scott Wallace, Beaumont; Dr. W. J. Jinkins, Jr., Galveston; Dr. B. F. Kitchens, Jr., Houston; and Dr. Cecil A. Robinson, Kermit. The guest speaker, Dr. H. Relton McCarroll, St. Louis, was elected to honorary membership.

New officers are Dr. Margaret Watkins, Dallas, president; Dr. Duncan McKeever, Houston, vice-president; and Dr. B. C. Halley, Jr., Fort Worth, secretary-treasurer. Dr. Edmund Cowart, Houston, is 1958 program chairman.

Approximately 60 members attended the business session and luncheon.

Texas Diabetes Association

Dr. Hugo T. Engelhardt, Houston, was elected president of the Texas Diabetes Association when that group met in conjunction with the Texas Medical Association annual session in Dallas in April. Other officers elected were Dr. Merton M. Minter, San Antonio, president-elect; Dr. Lawrence C. Cameron, Dallas, first vice-president; Dr. George Perdue, Houston, second vice-president; and Dr. Warren W. Moorman, Fort Worth, secretary-treasurer.

Sixty doctors attended the meeting.

Texas Physical Medicine And Rehabilitation Society

Officers of the recently founded Texas Physical Medicine and Rehabilitation Society, elected at its first formal meeting April 28 in Dallas, are Dr. Odon F. von Werssowetz, Gonzales, president; Dr. Vann S. Taylor, Dallas, vice-president; and Dr. Edward M. Krusen, Dallas, secretary-treasurer. Other founding members of the group include Dr. L. A. Leavitt, Houston, and Dr. Oscar O. Selke, Houston.

Purpose of the society is "to promote the art and sciences of medicine and the betterment of public health through an understanding and utilization of the function and procedures of physical medicine and rehabilitation." Active members must be diplomates of the American Board of Physical Medicine and Rehabilitation, but associate members may include physicians interested in utilization of the functions and procedures of physical medicine and rehabilitation.

Next annual meeting is scheduled to be held during the Texas Medical Association's Houston convention in 1958.

Texas Chapter, American Association Of Public Health Physicians

Dr. David M. Cowgill, San Benito, was named president-elect of the Texas Chapter, American Association of Public Health Physicians, at the dinner meeting of that group on April 28 in Dallas. The 30 persons present also elected Dr. R. E. Johnson, Austin, vice-president; Dr. Allan R. Doane, Austin, secretary-treasurer; and Dr. J. E. Peavy, Austin, to a four year membership on the Board of Trustees. Dr. Roy G. Reed, Victoria, assumed the presidency.

The Texas Chapter is the largest chapter of the association in the nation.

Texas Chapter, American Physical Therapy Association

Delegates to represent Texas at the June national convention of the American Physical Therapy Association in Detroit were elected and reports from its seven Texas districts heard when the Texas Chapter, APTA, met at the Statler-Hilton Hotel in Dallas, April 26-28. About 75 persons attended all the functions, and Miss Mary Haskell of New York, executive director, was a special guest.

Texas Chapter, American Academy of Pediatrics

At its next official meeting, the Texas Chapter, American Academy of Pediatrics, will vote on the advisability of holding its sessions during the Texas Medical Association convention each year and upon a change of by-laws to provide for election of one, rather than two, state chairmen for a period of three, rather than two, years. This was the decision of the group when it met informally for luncheon at Hotel Adolphus in Dallas April 30.

Chief feature of the program was a discussion of how teen-age problems are handled in Sherman, with Sherman Chief of Police Les Tribble as special speaker.

Past Presidents Association

Eight past presidents of the Texas Medical Association were present for the luncheon meeting of the Past Presidents Association in Dallas, April 29, and four visitors attended. A eulogy adopted by the Texas Surgical Society in tribute to the late Dr. Felix P. Miller of El Paso, a past president of the Texas Medical Association, was read, and brochures containing copies of it were distributed to those present. Dr. George Turner, El Paso, and others also paid tribute to Dr. Miller.

Dr. T. C. Terrell, Fort Worth, was reelected president; Dr. L. H. Reeves, Fort Worth, was reelected secretary.

Texos Society of Anesthesiologists

A scientific meeting drawing an overflow audience and several well attended social functions marked the April meeting of the Texas Society of Anesthesiologists. Named as officers were Dr. J. D. McCulley, Houston, president; Dr. M. M. Rosenzweig, San Antonio, president-elect; Dr. David O. Johnson, Austin, vice-president; Dr. Randle J. Brady, Houston, secretary-treasurer; and Dr. L. W. Schuhmacher, Houston, program chairman.

Texas Air-Medics Association

Approximately 60 persons attended the meeting of the Texas Air-Medics Association held in Dallas April 28-29. New officers include Dr. W. D. Marrs, Fort Worth, president; Dr. R. Henry Harrison, Bryan, vice-president and president-elect; Dr. C. F. Miller, Waco, secretary-treasurer; and Dr. J. D. McGee, Abilene; Dr. Virgil M. Payne, Dallas; and Dr. Phil Thomas, Little Rock, Ark., directors.

Texas Troumatic Surgicol Society

Dr. Russell Holt, El Paso, was elected president of the Texas Traumatic Surgical Society when that group met in Dallas April 27. First vice-president is Dr. G. V. Brindley, Jr., Temple; second vice-president, Dr. W. D. Marrs, Fort Worth; and secretary-treasurer, Dr. W. E. Crump, Wichita Falls. Fifty persons attended the society's afternoon session and social hour.

Conference of City and County Health Officers

Some 58 persons attended the Conference of City and County Health Officers, held April 29 in Dallas under chairmanship of Dr. Henry A. Holle, Austin. The program held was in accordance with the pre-meeting outline.

Society of Life Insurance Medical Directors of Texos

In a business meeting held following a luncheon in Dallas during the Texas Medical Association convention, the Society of Life Insurance Medical Directors of Texas elected Dr. Frank J. McGurl, Houston, president. Dr. Chester E. Cook, Dallas, was named secretary-treasurer. The group is making arrangements to meet during the Association session again in 1958.

Texas Society of Plostic Surgeons

Dr. Truman G. Blocker, Jr., Galveston, was elected president of the Texas Society of Plastic Surgeons at its meeting in Dallas on April 26. Serving with him are Dr. S. Baron Hardy, Houston, vice-president; and Dr. Steve R. Lewis, Galveston, secretary-treasurer.

Medical Branch Alumni Association

About 250 persons attended the traditional reception and dinner meeting of the Alumni Association of the University of Texas Medical Branch, which was held in the Statler-Hilton Hotel during the Texas Medical Association convention.

New officers elected included Dr. John A. Wall, Houston, president; Dr. C. M. Phillips, Levelland, president-elect; Dr. James H. Wooten, Columbus, vice-president; and Miss Mildred M. Robertson, Galveston, secretary-treasurer. Also announced was the new Alumni Executive Committee: Dr. William P. Devereux, Dallas; Dr. Edward Egbert, El Paso; Dr. Edgar Jones, Galveston; Dr. O. T. Kirksey, Galveston; Dr. Tom M. Oliver, Waco; and Dr. Mildred Stanley, Tyler.

Fifty-year graduates present for the 1907 class reunion

included Dr. Guy Jones, Dallas; Dr. Rene Huvelle, Dallas; and Dr. James W. Young, Sweetwater.

Dr. John B. Truslow, executive director of the Medical Branch, gave a resume of plans and problems, thanking alumni and members of the Texas Medical Association for backing and support of the Medical Branch budget for the next biennium.

Presented by Dr. L. Bonham Jones, San Antonio, Alumni Association president, was a resolution drawn up by officers and members of the Alumni Executive Committee on status of the proposed Alumni-Student Memorial Building. It stated, in essence, that "we adhere to our original purpose of an Alumni-Student Building to be constructed at a time . . . deemed advisable by the University and Medical Branch Administrations and the Alumni Association."

The group also presented a certificate of appreciation to Dr. Charles T. Stone, Sr., who retired recently as chairman of the Department of Medicine.

University of Tennessee Alumni Association

Dr. John B. Cummins of Fort Worth, 98, who was described by *Look* magazine as America's oldest practicing doctor, was among members who attended a reunion meeting of the University of Tennessee Alumni Association in Dallas April 29. The *Look* article was referred to in a recent Tennessee alumni periodical.

New officers elected included Dr. Hugh D. Murray, Dallas, president; Dr. H. M. Burkett, Dallas, first vice-president; Dr. Robert D. Moreton, Fort Worth, second vice-president; and Dr. Ralph S. Clayton, El Paso, secretary. Color slides and a talk about the Tennessee college's expansion were presented by F. June Montgomery, guest speaker.

Growth potential of this alumni association is considerable, since there are now 300 Tennessee medical alumni in Texas.

Tulane Alumni Assaciatian

Approximately 35 persons attended the Tulane Alumni Association banquet April 30 during the meeting of the Texas Medical Association in Dallas.

University of Oklahoma Medical Alumni Association

A tentatively planned banquet and meeting of the University of Oklahoma Medical Alumni Association was not held during the Dallas medical convention because of lack of sufficient interest by Oklahoma alumni, reports Dr. D. G. Harrel, Dallas.

American Medical Wamen's Associatian

Dr. Anita Johnson McNeely, regional director, inaugurated plans for a November meeting in Dallas to be held by the American Medical Women's Association board of directors when she and other members of this organization met for a social hour during the Texas Medical Association annual session in Dallas. Host to the women physicians and to seven seniors from the University of Texas Southwestern Medical School who attended was the Dallas Branch, AMWA. Representatives from Dallas, Houston, San Antonio and Fort Worth branches were present.

Baylor Medical Alumni Association

Some 140 members and wives of the Baylor Medical Alumni Association attended a banquet of that group at the Statler-Hilton Hotel in Dallas on April 29. Dr. Howard Crutcher, Dallas, was named president-elect, while other officers elected were Dr. J. Wade Harris, Houston, first vice-president; Dr. Hannibal Jaworski, Waco, second vice-president; Dr. J. C. Haley, Houston, secretary-treasurer; Dr. Norborne Powell, Houston, faculty representative; and Dr. Charles M. Bielstein, Oklahoma City; Dr. Jesse I. Knox, Azusa, Calif.; and Dr. H. G. Williams, Phoenix, representatives-at-large. Dr. Newton Walker, El Paso, became president.

Arkansas Alumni Assaciatian

About 30 members of the Arkansas Alumni Association attended a dinner and cocktail party in the Statler-Hilton Hotel in Dallas April 29. In charge of arrangements was Dr. L. F. Ritchey, Dallas.

MEDICAL MEETINGS

GP's Elect Texans

Dr. Holland T. Jackson, Fort Worth, was unanimously named president-elect of the American Academy of General Practice during its March meeting in St. Louis. Reelected speaker of the Congress of Delegates was Dr. James D. Murphy, Fort Worth. Texas also won the first place award for the best membership record during 1956; this plaque was accepted by Dr. Andrew Tomb, Victoria.

Much action in the Congress of Delegates concerned the Academy's postgraduate study and membership requirements. It was voted to maintain the rigid postgraduate study rules, and a one year rotating internship was made an essential for membership.

Retiring president Dr. J. S. DeTar, Milan, Mich., spoke for close cooperation between general practitioners and medical schools to foster undergraduate medical education in general practice. One of Dr. DeTar's recommendations, adopted by the Congress, was a new definition of general practice: "General practice is that area of medical care performed by a doctor of medicine in those fields of diagnosis and therapy commensurate with his professional competence, assuming a total continuing responsibility for the health of the individual or the family as a unit."

More than 3,000 doctors attended the meeting. Dr. Malcom E. Phelps, El Reno, Okla., was inducted as president.

AAPS Elects Rumph

Dr. Mal Rumph, Fort Worth, was named president-elect of the Association of American Physicians and Surgeons at the annual meeting of that group in Miami Beach April 27. Dr. John K. Glen, Houston, was reelected to the board of directors, and Dr. E. E. Anthony, Fort Worth, was chairman of the resolutions committee. Also present from Texas was Dr. Charles A. Behrens, Houston.

The association voted to hold its 1958 session in San Francisco (April 10-12) and its 1959 one in Fort Worth (April 2-4).

National prize winners in the 1957 AAPS Essay Contest, most successful of any of those held, officials report, received $1,675 in awards, the top prize of $1,000 going to

Sonia Gustavson of Olivia, Minn. The group voted to add $1,000 in prizes for the 1958 contest.

Among resolutions adopted by the assembly and delegates were those calling for support by members of a bill repealing the income tax amendment, abandonment of the present Medicare plan, reaffirmation of support of amendments to stop federal encroachment on business and states' rights, opposition to ratification of the charter of the International Atomic Energy Agency, opposition to civil rights legislation, cutting of the national budget by at least $6.5 billion, opposition to free hospitalization for social security beneficiaries, reaffirmation of recommendations of the Hoover Commission, and opposition to federal subsidies for public schools and medical and dental schools.

Houston's Postgraduate Assembly Plans Varied Program July 15-17

Twenty-one distinguished out-of-state speakers will provide up-to-date information in almost all fields of medicine when the Postgraduate Medical Assembly of South Texas holds its twenty-third annual meeting July 15-17 at Houston's Shamrock Hilton Hotel.

Meeting simultaneously each day from 9 a. m. until 5:30 p. m. will be the medical, surgical, and ophthalmological-otolaryngological sections. A total of 66 postgraduate medical papers will be presented, and staggered intermission periods in the medical and surgical sections will permit attendance of 30 lectures in these sections.

Participating in a panel discussion on "Etiology of Cancer" before all three groups will be Dr. Michael B. Shimkin, chief of the Biometry Branch, National Cancer Institute, Department of Health, Education and Welfare, Bethesda, Md.

The $20 registration fee will include all scientific sessions, exhibits, medical motion pictures, three luncheon meetings with entertainment in the hotel's Emerald Room, a dance and floor show, and a fashion show–tea for doctors' wives. Room reservations should be made direct with the Shamrock Hilton or other hotels. Registration fees may be sent now to the executive office of the assembly, 412 Jesse H. Jones Library Building, Houston 25.

Radiation Experts Meet in Austin

Some of the nation's top radiation experts spoke at the Fourth Industrial Hygiene Conference held at the University of Texas, Austin, May 18, an event sponsored by the University of Texas Department of Civil Engineering, sections of the American Industrial Hygiene Association, and the Texas State Department of Health.

Dr. William L. Wilson, Texas State Department of Health occupational health division director, made the opening remarks, and at a luncheon session Brigadier General Elbert DeCoursey, commandant of the Army Medical Service School, Fort Sam Houston, discussed "Residual Radiation in Relation to Civil Defense."

Texas Hospital Association Installs Boone as President

The twenty-eighth annual convention and technical exhibit of the Texas Hospital Association was completed May 14-16 at the Shamrock Hilton Hotel, Houston.

Meeting concurrently with the Texas Association of Hospital Auxiliaries, the Texas Association of Medical Record Librarians, the Texas Association of Nurse Anesthetists, the Texas Conference for Operating Room Nurses, the Hospital Purchasing Agents Association of Texas, and the Hospital Chaplains in Texas. A day previous, the Association of Catholic Chaplains in Texas Hospitals and the Texas Conference of Catholic Hospitals began sessions, while the American College of Hospital Administrators examined prospective members for admission.

Virtually every area of patient care in the 430 member hospitals in the state was represented in the attendance.

The program included such topics as "Doctor-Trustee-Administrator Responsibility in Hospital Operation," "Open Heart Surgery," "Cardiovascular Surgery," "The Mental Patient and His Needs," "Medico-Legal Aspects of Medical Records," and "Alcoholism—Its Nature and Treatment."

Among participating speakers were Tol Terrell, president-elect of the American Hospital Association and administrator of Shannon West Texas Memorial Hospital, San Angelo; Dr. James D. Murphy, Fort Worth; Horace M. Cardwell, outgoing president of the Texas Hospital Association and administrator of Memorial Hospital, Lufkin; and Bolton Boone, D.D., incoming president of the Texas Hospital Association and administrator of Methodist Hospital, Houston.

New THA President Boone and Mrs. Boone are the parents of Dr. Ted Boone, resident physician in urology at Parkland Memorial Hospital, Dallas, and of Mrs. Larry Arnspiger, wife of a Dallas surgeon.

Denver Cancer Conference Set

The eleventh annual Rocky Mountain Cancer Conference, open to Texas doctors, is slated for July 10-11 in Denver. Sponsored by the Colorado State Medical Society and the Colorado Division of the American Cancer Society, it will feature cancer specialists from across the nation on its scientific program.

These include Dr. Kenneth C. Sawyer, Denver; Dr. L. Henry Garland, San Francisco; Dr. Joseph Bank, Phoenix; Dr. Alton Ochsner, New Orleans; Dr. Joseph Cunningham, Birmingham; Medical Corps Colonel Clinton S. Lyter, Aurora; Dr. Arthur T. Hertig, Boston; Dr. Richard H. Overholt, Boston; Dr. Mordant E. Peck, Denver; Dr. Seymour Farber, San Francisco; and Dr. James E. Lewis, Colorado Springs. Banquet speaker will be Kenneth McFarland, Ph.D., of General Motors Corporation.

Additional information is available from Dr. John S. Bouslog, conference chairman, 835 Republic Building, Denver.

U. S., Mexico Join in Public Health Session

The United States–Mexico Border Public Health Association held its annual meeting April 9-12 in San Antonio.

Program topics included the progress of eradication of malaria in Mexico, United States Public Health Service activities in yellow fever, programs for field training of public health personnel, integration of the maternal and child health program into the general public health program, plans for establishing minimum standards for tourist accommodations in Latin America, public health in disasters, and diarrheal disease.

Section meetings on maternal and child health, nursing, sanitation, tuberculosis, venereal disease, and veterinary public health were held.

New president is Dr. Malcolm H. Merrill, Berkeley; secretary, Dr. Sidney B. Clark, El Paso.

Texas Doctors Invited to July Legal Medicine Congress

The First American Congress of Legal Medicine and Law-Science Problems will be conducted by the Law-Science Institute in Chicago July 8-13 and July 15-20.

Aiding and cooperating in the occasion are the Law-Science Academy of America and the Law-Science Foundation of America. Physicians who have connection with civil litigation from time to time, attorneys interested in legal medicine and elements of medicolegal litigation, and other persons involved in prosecution and defense of criminal cases will find features of considerable interest at this session.

Complete details are available from Dr. Hubert Winston Smith, Director, Law-Science Institute, University of Texas, Austin 12.

MEDICOLEGAL NOTES

LIABILITY FOR ABANDONMENT

The question of abandonment is one which is frequently raised because there seems to be some doubt as to just what constitutes abandonment and what can be done to guard against liability for abandonment.

A Texas case directly in point is Urrutia v. Patino (1927).* One of the grounds alleged by the plaintiff in this case to recover damages for the negligence of the defendant-physician was "that appellant (physician) was called to render necessary medical attention to relieve deceased's suffering, but that appellant, unmindful of his duty, refused to call upon and treat the deceased (at his home) . . ."

The testimony showed that the physician restricted his practice to only office and hospital practice, and did not visit at private homes. It further appeared that the patient was not carried to the physician's office or to any hospital, nor was it shown that he could not have been safely carried there for further examination and treatment. It was conceded that the defendant-physician "declined to go to the private home for the reason he did not practice away from his office or hospital, presumably because his kind of practice held him where he had access to his equipment, etc. . . ."

In regard to the alleged grounds of recovery for abandonment, the court in its opinion held:

> Professional relations between the physician and his patient are at most merely contractual and may ordinarily be terminated at the will of either party. Miller v. Blackburn, 170 Ky. 263, 185 S.W. 864. The rule between them in this city seems to be that so long as that relation lasts it is the duty of the physician to treat him. It is said in Street on Personal Injuries in Texas, 782: ". . . A physician is never justified in withdrawing from a case he has once undertaken at a critical stage when his place cannot be supplied. To withdraw means voluntarily to refuse to continue his services. If he is ever justified in so withdrawing when it is apparent that to do so must result in injury it can only be where the patient obstinately refuses to follow the treatment prescribed. It is a fact honorable to the profession that the question never seems to have been directly presented."

Also in its opinion, the court stated, in regard to the situation presented by the physician limiting his practice to office and hospital visits as it concerns an action for abandonment, that:

> The second complaint is that he failed to follow up and thereafter treat the deceased, which was a contributing cause of his death. After appellant refused to follow up the case from his office, he was discharged and cannot be charged with neglect thereafter. In refusing to leave his office in accordance with his practice, his custom being only to treat patients who came to his office, he was within his rights and appellee was within her legal rights to secure another competent physician, which she did, though he did not consult with appellant.

This case very clearly points out the law as to abandonment in Texas, and also shows how it will be applied in a situation where the physician limits his practice. In regard to the case in which the physician is limiting his practice, it is always advisable that the physician inform the patient of this circumstance, because it might avoid confusion on the part of the patient which could later lead to a suit for abandonment.

A case, although not from Texas, which gives a good general rule as to abandonment, and one which our Texas courts possibly would follow, is Gray v. Davidson (1942) (Washington)† in which the court stated:

> It is the general rule that when a physician undertakes to treat a patient, it is his duty to continue to devote his best attention to the case until either medical attention is no longer needed, he is discharged by the patient, or he has given the patient reasonable notice of his intention to cease to treat the patient, so that another physician may be obtained. . . . Abandonment of a case without sufficient notice or adequate excuse is a dereliction of duty, and if injury results therefrom, the physician may be held liable in damages.

It is well to remember that when a physician is employed to attend a patient, the relation of physician and patient continues until ended by the consent of the parties, or revoked by the dismissal of the physician, or until his services are no longer needed. The physician must exercise reasonable and ordinary care and skill in determining when to discontinue his treatment. When he terminates his employment without due notice to his patient and without affording the latter an ample opportunity to secure other medical attendance, he is liable for any damages caused thereby.

—PHILIP R. OVERTON, LL.B., Austin.

*297 S.W. 512.

†130 P. (2d) 341, affirmed 136 P. (2d) 187.

TEXAS LEGISLATION FOR 1957

Many of the bills considered by the fifty-fifth Texas Legislature, which adjourned late in May, dealt with health matters. Following is a summary of some of this legislation which passed; other bills mentioned in earlier legislative reports in the *Journal* did not pass.

The dates in parentheses are those on which measures were signed by the Governor. Bills without dates had not been acted on by the Governor when this *Journal* went to press. Starred (*) bills will become effective August 22—90 days after adjournment; others became or will become effective immediately upon being signed by the Governor (or on the date filed without his signature) unless an effective date is specified in the bill.

Annual Sessions.—H. J. R. 1, amending Article III of the Constitution to provide for annual sessions of the Legislature and annual compensation of $7,500 for members; temporary residence in the Capitol for Lieutenant Governor and Speaker. To be voted on in general election November, 1958.

Appropriations.—To be reported in the next *Journal.*

Drugs.—S. B. 238, regulating the sale and manufacture of foods, drugs, and cosmetics, better known as Pure Food and Drug Law. This law had not been amended for years and consequently was inadequate in meeting present-day problems.*

H. B. 31, amending the Uniform Narcotic Drug Act to provide increased penalties for adults for certain offenses where minors under 19 years of age are hired, employed, used, etc., in unlawful narcotic traffic (April 24).

H. B. 88, providing for treatment of narcotic drug addicts in state hospitals under the jurisdiction of the Board for Texas State Hospitals and Special Schools (May 6).

Health.—H. B. 434, authorizing the State Department of Health to provide planning assistance for municipalities of 25,000 population or less and to accept grants therefor under provisions of Federal Housing Act of 1954 or from other sources* (April 29).

H. B. 454, amending previous legislation to provide that in any county containing an incorporated city, the commissioners court and city council may cooperate in forming a city-county health unit (April 19).

Hospitals.—S. J. R. 3, amending Article IX of the Constitution to provide that the Legislature may authorize the creation of a hospital district for Amarillo and Potter County; also to authorize county-wide hospital districts for Wichita and Jefferson Counties. To be voted on at November, 1958, election (May 20).

S. B. 340, providing for the creation of a hospital district in the City of Amarillo (May 2).

S. B. 450, authorizing the creation of public hospital districts in counties meeting certain requirements (May 8).

H. B. 169, authorizing the Board for Texas State Hospitals and Special Schools to establish out-patient clinics for mentally ill, and a mental health program consisting of the following: (1) 60-bed area or community hospital for treating mentally ill, research, training, and education and an out-patient clinic which may be operated in conjunction; (2) separate larger mental hospital of approximately 500 beds (effective September 1).

H. B. 691, enabling cities to create hospital authorities, without taxing power; providing for the issuance of revenue bonds, etc., and opportunity for referendum election.

H. B. 843, providing an additional optional method for establishment and administration of county-wide hospital districts.

H. B. 919, amending previous legislation to provide for hospitalization for members of the military forces of the state.*

Insecticides-Fungicides-Herbicides.—H. B. 43, amending the insecticide and fungicide law to make its provisions applicable to household insecticides.*

H. B. 194, regulating the labeling and sale of hazardous substances. This bill includes regulation of thallium when used in certain preparations.*

H. B. 226, amending the act which regulates the sale and use of hormone type herbicides by changing the definition of "herbicide."

Insurance.—S. B. 191, amending the Insurance Code to regulate unfair competition and deceptive practices in insurance business (May 8).

H. B. 433, revising the employers' liability and workmen's compensation insurance laws. It removes the present limitation on medical service benefits and provides that such services shall include treatments necessary to physical rehabilitation; it also provides for referral of injured employee to the Vocational Rehabilitation Division.*

H. B. 482, amending the Insurance Code relating to minimum number of employees which may be insured under an employer group insurance policy. It provides that a policy must cover at least 10 employees at date of issue.

Liquor.—H. B. 329, amending existing legislation to provide that Legislature may appropriate funds from time to time, in addition to the present method, for the operation of the Texas Commission on Alcoholism.*

Mental Health.—H. B. 426, relating to the jurisdiction of probate courts with respect to commitments of certain mentally ill persons for observation or treatment.

H. B. 6, concerning hospitalization, commitment, care, observation, and treatment of the mentally ill; licensing mental hospitals operated by private persons and political subdivisions (effective January 1, 1958) (May 20).

H. B. 169. See this bill under "Hospitals."

H. B. 653, establishing and providing for a state school for mentally retarded.

Miscellaneous.—H. B. 165, prohibiting the making or filing of false, misleading, or unfounded reports to any government agency (May 6).

Nurses.—H. B. 99, amending the Licensed Vocational Nurse Act as to composition of the board (1 physician, 1 hospital administrator, 1 registered nurse; balance to be licensed vocational nurses), and allowing licensed vocational nurses who could have qualified when the original bill passed to qualify now (April 5).

H. B. 463, amending previous legislation so as to exempt statewide licensed vocational nurses' registration bureaus operated without profit from payment of an occupation tax or license fee.*

Ophthalmic Dispensers.—S. B. 104, exempting ophthalmic dispensers from certain provisions of the Texas Optometry Law, and providing that ophthalmic dispensers have the right to compound, duplicate, fill, and adjust ophthalmic prescriptions of licensed physicians and optometrists (May 20).

Pharmacy.—H. B. 439, amending legislation relating to regulation of the practice of pharmacy and prescribing the powers and duties of the State Board of Pharmacy.

Poisons.—H. B. 539, providing that it shall be unlawful to sell any rat poison, insect poison, etc., which contains thallium sulfate or any other thallium compound, in sufficient quantity to be dangerous to the health or life of a human being.

Public Assistance.—H. J. R. 2, amending Article III of the Constitution to increase the maximum monthly payment to needy aged, needy blind, and needy children, the maximum not to exceed $21 from state funds. To be voted on in November, 1958, general election.

H. J. R. 36, amending Old Age Assistance Act to provide direct or vendor payments for medical care on behalf of such recipients. Payment of state funds shall never exceed payments of federal funds. To be voted on at November, 1958, election.

Records.—S. B. 234, providing for proof of business and official records by use of photographic copies.

Vital Statistics.—S. B. 167, amending Rule 47a relating to disclosure of illegitimacy. This is to be done only on order of the court of competent jurisdiction (May 20).

S. B. 168, amending Rule 39a to provide for certificates of stillbirths to be signed by the person in attendance (May 20).

S. B. 169, amending Rules 51a and 54a to increase the fees for certified copies of vital statistic records (April 30).

House Approves Doctor Procurement System

To replace the special doctor draft act that will expire June 30, the United States House of Representatives on May 23 passed an amendment to the regular draft act and sent it to the Senate, where approval was expected. The

bill (H. R. 6548), backed by the Defense Department, would:

1. Authorize the special call-up of physicians, dentists, and allied specialists through age 35 if they have had educational deferments; they would be drafted as members of their professions, rather than by age groups, as is the case with other draft registrants.

2. Continue the national, state, and local medical advisory committees to the Selective Service System.

3. Continue several provisions that were in the special doctor draft act, including: right of doctors to volunteer for, and be commissioned at, an early date; right of doctors to resign their commissions after 12 months or more of active duty; provision for use of alien physicians in the military services.

During the period the doctor draft act has been in force, headquarters for the State Advisory Committee to Selective Service, which has given its advice relative to the essentiality of drafted professional personnel to their own communities, has been in the central office of the Texas Medical Association. Under the law which is expected to supersede the present procedure, local and state medical advisory committees will continue, but it is anticipated that the state headquarters will be housed and managed independently of the Texas Medical Association even though members of the Association will retain certain responsibilities in relation to the committee.

The State Advisory Committee serving Texas at the time the doctor draft act nears its end is as follows: Dr. E. A. Rowley, Amarillo, chairman; Dr. Henry Holle, Austin; Miss Bertha Alford, R. N., Austin; W. A. Burke, D. V. M., San Antonio; and B. Carl Holder, D. D. S., Cuero; with Drs. R. E. Windham, San Angelo; J. L. Cochran, San Antonio; and Hamilton Ford, Galveston, medical advisers, and C. Lincoln Williston, Austin, executive secretary.

EDUCATION AND RESEARCH

BAYLOR UNIVERSITY COLLEGE OF MEDICINE

Four doctors at Baylor University College of Medicine have been awarded grants totalling $68,533 by the American Cancer Society. They are Dr. Arthur Kirschbaum, anatomy, $47,742, to study the noncellular agent of tissue origin in the induction of mouse leukemia; Dr. Donald A. Rappoport, biochemistry, $8,000, to make comparative studies on the intermediary metabolism of normal and x-irradiated rat tissues; Dr. Robert P. Williams, microbiology, $5,325, to investigate the dynamic biosynthesis of nucleic acids in germinating bacterial spores; and Dr. Charles Spurr, medicine, $7,466, to study the interrelationship between Pasteur reaction and oxidative phosphorylation by normal and leukemic leukocytes.

Mrs. Henry C. Haden, Houston, and her daughter, Mrs. Albert B. Fay, have announced a gift of $25,000, a microtome, and a unique slide collection on eyes to the Baylor Department of Ophthalmology from the estate of the late Dr. Henry C. Haden. The money was given to start an endowment fund for establishment of a permanently endowed chair of ophthalmology at Baylor.

The Baylor Department of Visual Education took second prize for its urology exhibit at the American Urological Association convention in Pittsburg during May.

Dr. John McKittrick of Harvard Medical School spoke at Baylor recently on "The Surgeon's Role in the Control of Cancer." Other recent visitors were Dr. Liza W. Chacko, head of the Department of Anatomy, All India Institute of Medical Science, New Delhi; Dr. N. Elane Wilcox, University of California; and Dr. C. E. Ford, cytogeneticist attached to the British Atomic Energy Research Establishment, Harwell, England.

Brigadier General Elbert DeCoursey, commandant of the Army Medical Service School at Fort Sam Houston, was commencement speaker May 27, when 89 students received their medical degrees.

Dr. D. E. Jenkins, professor of medicine, has been named president-elect of the American Trudeau Society.

Specialists from all parts of the United States participated in a pediatric symposium presented by Baylor's Department of Pediatrics and the Division of Maternal and Child Health, Texas State Department of Health, May 8-11 at Texas Children's Hospital in Houston.

POSTGRADUATE COURSES

A Short Course in the Rehabilitation of the Laryngectomee, Houston, July 8-19. Presented by the University of Texas Postgraduate School of Medicine and sponsored by the Houston Speech and Hearing Center, the University of Texas M. D. Anderson Hospital and Tumor Institute, and the Department of Health Education and Welfare, Office of Vocational Rehabilitation, the course will be given at the Texas Medical Center. It will be held Monday through Friday, 9 a. m. to 5 p. m., with occasional night lectures. Designed for graduate nurses, physicians, speech therapists (graduate or in training), laryngectomees with adequate speech (University degree), graduate psychologists, and vocational counselors, it will include such material as vocational adjustment and rehabilitation in the United States, the Texas problem, facts about cancer, anatomy of the speech mechanism, normal and esophageal speech and voice production, laryngeal surgery, radiation therapy, techniques in teaching esophageal speech, clinical practice in teaching, contributions of medical and lay groups. To insure individual attention, enrollment will be limited to 30, 10 of whom will receive $200 traineeships. Lodging available at moderate rates. For further details, write to Dr. Grant Taylor, Dean, University of Texas Postgraduate School of Medicine, Texas Medical Center, Houston 25.

Medical Research Foundation Receiving Grant Applications

The Medical Research Foundation of Texas is now receiving applications for grants in the fields of medical and related research.

The foundation is specifically interested in providing "priming funds" so that projects in a particular institution will be more likely to qualify for additional help from other sources. Although it is preferred that the amount of money granted in any one case not exceed one-half of the total cost of a project, this is not an invariable rule. Pilot research projects which have difficulty in qualifying for support from other agencies and which are designed and conducted by unestablished, yet qualified, investigators will be considered for total support by the foundation.

Grants will not include any part of the salary or other compensation paid to investigators. Only the cost of technicians, equipment, materials, and overhead will be considered at this time. Overhead expenses incurred through conduct of research supported by other agencies will be considered in special cases.

Projects in any of the medical fields and research in any way related to the medical sciences may be conducted in or through any medical or dental school in Texas. All grant

applications must be processed through accepted channels of the institution in or through which the proposed research is to be conducted; however, a "preliminary notice of grant application" should be completed and returned directly to the foundation offices as quickly as possible to allow for planning.

Further information is available from the foundation's executive offices, University Station, Galveston. Dr. F. J. L. Blasingame, Wharton, is president of the foundation; Dr. H. W. Paley, Galveston, executive vice-president.

University of Texas Medical Branch

Visitors at the University of Texas Medical Branch in Galveston during March included Dr. Sam L. Clark, Jr., assistant professor of anatomy, Washington University Medical School, St. Louis; Dr. Wesley W. Spink, professor of internal medicine, University of Minnesota, Minneapolis; Dr. Richard K. Anderson, member of the Medical Sciences Committee, Rockefeller Foundation, New York; Dr. Harold Barnes, biologist from the Marine Station, Milport, Scotland; Dr. Ernest Baldwin, director of the Institute of Biochemistry, University of London; Dr. Jacques Grey, medical director of Parke Davis and Company.

Southwestern Medical School

A "Cardiac Institute" in Dallas is envisioned by Dr. Hugh E. Wilson, chairman of the Division of Cardiac and Thoracic Surgery at the University of Texas Southwestern Medical School, as several recent grants make that goal a nearer reality. In January the Southwestern Medical Foundation granted Dr. Wilson $8,200 for purchase of a six-channel physiological recorder; later another $8,600 was approved for expansion of laboratory facilities; and he was presented $900 from the Dallas Woman's Forum for purchase of a new model heart pump. Funds for the first grant came from Mrs. H. T. Clark of Dallas in memory of her late husband.

Dr. Frederick J. Bonte, chairman of the school's Department of Radiology, recently participated in a Chicago meeting of the American College of Radiology; Dr. Hubert J. Seale, clinical instructor in ophthalmology, attended a symposium on glaucoma given by the New Orleans Academy of Ophthalmology in that city; and Dr. C. James Krafft, clinical instructor in pediatrics, attended a conference on "Medical Pediatric Education" sponsored by the American Academy of Pediatrics.

A $500 contribution has been presented to the Southwestern Medical Foundation's Eye Bank by Mrs. Robert Wright Reeves of Dallas in memory of her mother, Mrs. Gilbert G. Wright. This recently opened bank, only one in Texas other than that in Houston, will provide corneas for transplant to surgeons and will also furnish eyes for research in medical schools.

Cancer Research Training Program

A research training program to increase scientific manpower for clinical and nonclinical cancer research has been established by the National Cancer Institute of the Public Health Service, Department of Health, Education, and Welfare. Funds totaling $1,200,000 have been appropriated for the program by Congress. Slightly more than half the appropriation was earmarked especially for training in fields of chemotherapy and steroid hormones.

Heart Research Monies Go To Two Texas Schools

The University of Texas Medical Branch, Galveston, and the University of Texas Southwestern Medical School, Dallas, are among institutions receiving awards totalling more than $1,000,000 for heart research this year from the Life Insurance Medical Research Fund.

Dr. H. G. Swann of the Medical Branch was awarded $16,500 for research on functional distension of the kidneys, while Dr. John C. Porter of the Dallas school received $15,070 for study of hypothalamic control of sodium excretion.

OF GENERAL INTEREST

PERSONALS

Dr. R. Lee Clark, Jr., Houston, presented a paper on "New Concepts and Approaches in the Etiology and Treatment of Cancer" when the South Carolina Medical Association held its annual meeting April 30-May 2 at Myrtle Beach.

Drs. E. Stanley Crawford, Denton A. Cooley and *Michael E. DeBakey,* all of Houston, presented a paper on "Clinical Use of Synthetic Arterial Substitutes in the Aorta and Major Arteries" during the fifth scientific meeting of the International Society of Angiology, North American Chapter, held in New York City June 1.

Six Texas doctors were among those featured on the program during the twenty-third annual meeting of the American College of Chest Physicians, held in New York City May 29-June 2. They were *Dr. Ivan E. Cushing,* research fellow in internal medicine, *Dr. William F. Miller,* assistant professor of medicine, and *Dr. Robert R. Shaw,* clinical professor of surgery, all of the University of Texas Southwestern Medical School, Dallas; *Dr. Lawrence M. Shefts,* associate professor of thoracic surgery, University of Texas Postgraduate School of Medicine, San Antonio division; *Dr. George S. McReynolds,* associate professor of otolaryngology, University of Texas Medical Branch, Galveston; and *Dr. Michael E. DeBakey,* Baylor University College of Medicine, Houston.

Dr. Carlos E. Fuste, Alvin, Councilor of District 8, discussed "Medical Ethics Considerations in Relations Between Doctors and Pharmacists" when he represented the Texas Medical Association as a guest speaker in Victoria May 26. The occasion was a pharmacy management conference for southeast and south central Texas pharmacists, owners, drug travelers, and managers, held by the University of Texas Pharmacy Extension Service and sponsored by the Victoria Pharmaceutical Association.

Mrs. Lucille Marie Davis, wife of *Dr. Herman L. Davis,* San Antonio, died on May 10, 1957.

Blue Cross Report Shows Record Payments

Blue Cross members in 1956 received more than one billion dollars' worth of hospital care—the largest amount yet paid in a single year in the history of hospital prepayment. This record was disclosed by the Blue Cross Commission May 4 in its published "Report to the Nation, 1957." Also cited was the fact that 93 cents of each subscriber's dollar was returned in form of hospital service benefits. Some 9,000,000 Blue Cross members admitted to hospitals last year received more than 53,000,000 patient days of care through Blue Cross.

Another 1956 "first" for Blue Cross: the year's operating

expenses were the lowest since the program began more than 25 years ago. Only 6 cents of each income dollar was used to operate the 86 Blue Cross Plans in the United States, Alaska, Puerto Rico, and Canada.

Nationwide Health Survey Launched

In the first survey of its kind conducted in 20 years, the U. S. Public Health Service began, this May, a national health survey to determine the extent of illness and disability within the United States population.

Legislation enacted during the last session of Congress and supported by the American Medical Association made the household interview survey possible. Facts being collected include statistics on the number, age, sex, other personal characteristics of persons suffering from diseases, injuries, or handicapping conditions; length of time they have been unable to carry on their usual activities; and whether or not the conditions have had medical attention.

'Texas Volunteer' New Cancer Paper

For the first time, this year, the Texas Division of the American Cancer Society will raise more than $1,000,000 for its cancer fighting projects, states the *Texas Volunteer,* new official publication of the division. More Texans than ever before will also receive educational literature from the group. The *Texas Volunteer,* first published in May, is designed to stimulate and assist the work of Texas Division committees, both local and state, and will be mailed to each volunteer on the mailing list of the division between issues of *The Texas Cancer Triangle.*

Construction to Start on New Southern Medical Home

Detailed plans and specifications were completed in May for a modern headquarters building to be built in Birmingham during 1957 by the Southern Medical Association.

Building and site will represent an investment of $175,000. The structure, to be located on nearly an acre of land, will be a split-level unit containing 6,854 square feet of finished space and about 1,400 of semi-finished reserve. Housed here will be offices, the editorial department of the *Southern Medical Journal,* woman's auxiliary headquarters, employee lunchroom, a conference-library room, and other facilities.

Plans for financing include voluntary contributions by members and friends of the association, but any remaining building fund needs will be secured by a conventional mortgage loan. Members of the Home Building Finance Committee include Dr. Milford O. Rouse and Dr. Curtice Rosser, Dallas.

Special Archives Rate Available to Residents

The editorial board of the *Archives of Physical Medicine and Rehabilitation* has established a special subscription rate of $5 per year for bona fide residents in physical medicine and other specialties in the United States, its territorial possessions, Mexico, Canada, United Kingdom, and Europe. Persons interested should write to Archives of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago 2.

VA Doctors Converge on Enemy: Hypertension

Discovery of a substance in the human blood stream believed to be the actual cause of high blood pressure and the search for a remedy have been announced by the Veterans Administration.

The chemical substance, hypertensin, was isolated by a research group at the Cleveland VA Hospital.

Now the group has started a quest for a chemical agent which will counteract hypertensin, considered responsible for fully 25 per cent of all deaths. (Among men over 50, the death curve sweeps upward). Object of the search is some agent (1) that will block the sequence of reactions by which renin produces hypertensin I, or (2) that turn hypertensin I into the dangerous hypertensin II, or (3) that cause hypertensin II to constrict blood vessels.

MEMORIAL LIBRARY

Recent Publications by Texas Physicians

Additional recent articles by Texas physicians, all of which are available at the Memorial Library of the Texas Medical Association, are listed hereafter. The list began in the May issue of the *Journal* (pages 356-359).

Moyer, John H.: Drug Therapy of Hypertension, A.M.A. Arch. Int. Med. 98:427-443 (Oct.) 1956.

Moyer, John H.: Effective Antiemetic Agents, M. Clin. North America 405-432 (March) 1957.

Moyer, John H.: Hypertension with and Without Renal Damage: Renal Response to Therapy with Antihypertensive Drugs, M. Rec. & Ann. 51:288-296 (Jan.) 1957.

Moyer, John H.: Psychosomatic Problem in Drug Evaluation, A.M.A. Arch. Int. Med. 98:608-616 (Nov.) 1956.

Moyer, John H.: Treatment of Ambulatory Patient with Hypertension, GP 15:109-134 (Feb.) 1957.

Moyer, John H.: Treatment of Hypertensive Emergencies, GP 15:105-132 (March) 1957.

Moyer, John H., and others: Drug Therapy (Mecamylamine) of Hypertension A.M.A. Arch. Int. Med. 98:187-210 (Aug.) 1956.

Moyer, John H., and others: Drug Therapy of Hypertension in Elderly Patient, Geriatrics 11:527-542 (Dec.) 1956.

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GIFTS TO THE LIBRARY

Dr. James M. Graham, Austin, 32 bound journals, 32 unbound journals.
Dr. J. O. S. Holt, Jr., Dallas, 3 Audio-Digest tapes.
Dr. S. N. Key, Jr., Austin, 4 journals.
Dr. James E. Kreisle, Austin, 2 books.
Dr. Georgia F. Legett, Austin, 11 journals.
Dr. Roy H. Morris, Jr., Elgin, 147 journals.
Dr. Nelson L. Schiller, Austin, 13 journals, 41 reprints.
Dr. B. O. White, Austin, 24 journals.
Dr. R. T. Wilson, Austin, 51 journals, 1 book.

AUDIO-DIGEST TAPES

No. 84. The Results of Sphincter-Preserving Operations for Carcinoma of the Mid-Rectum, by R. Russell Best. Side 1. The Role of Hypnosis in Anesthesiology, by Milton J. Marmer. Side 2.

No. 85. Dessicated Thyroid Therapy Following Total Thyroidectomy for Papillary Carcinoma, by George Crile, Jr. Side 1. Saphenous Vein Stripping and Vulvar Vein Ligation for Varicose Veins in Pregnancy, by Rodger E. Weissman. Side 2.

No. 86. Shock, Infection and Thromboembolism as Complications of Obstetric Hemorrhage, by Bayard Carter. Side 1. Estrogen-Testosterone Treatment of Elderly Women, by William H. Masters. Side 2.

★ Motion Pictures

Hemo the Magnificent

16 mm., sound, color, 60 min., 1957.

This film dramatizes the story of blood and its circulation, using animation, photomicrography, and medical movies. Among other scientific facts, the program explains the anatomy of the circulatory system and the function of the various organs involved, the work of the human heart, and the functions of the arteries, capillaries, and veins. (A Bell System Science Series Program.)

Human Heredity

16 mm., sound, color, 20 min., 1956.

This film is specifically designed to raise questions about sex roles, "blood relationships," sex differences, and the nature of prejudice. The film covers the basic concepts of genes and chromosomes, dominant and recessive traits, twinning, and the elements of fertilization and development. It is designed primarily for grades 7 and above.

Pitfalls in the Management of Refractory Heart Failure

16 mm., sound, color, 35 min.

This motion picture demonstrates some of the common, yet often overlooked, pitfalls. Differential diagnosis, proper handling of digitalization, and diuretic therapy and its effect upon electrolyte balance are among the vital problems under discussion. Bedside conferences illustrate over digitalization and underdigitalization, hypochloremic alkalosis, hyperchloremic acidosis, the low salt syndrome, and potassium imbalance leading to apparent "refractory" states.

★ Books

Physical Diagnosis

RALPH H. MAJOR, M. D., *Professor of Medicine and of the History of Medicine, University of Kansas, and* MAHLON H. DELP, M. D., *Professor of Medicine, University of Kansas. ed 5. 358 pages. $7. Philadelphia, W. B. Saunders Company, 1956.*

The process of reviewing this work was a meticulous one, for there is much fundamental information in this compact, concise, well illustrated volume. The only improvement the reviewer could suggest would be to have the illustrations in color, the cost of which would be prohibitive.

It behooves all of us to stay in touch with the fundamentals of medical practice, for should a national disaster of any great magnitude befall us, our minds, our fingers, and what instruments we could gather together might be all we would have with which to practice our profession and alleviate the distress of many people. This possibility is an extreme one for the advocacy of a serious going over of this book, but aside from this, even with all our modern facilities, it is still important to gain all the information concerning a patient that it is possible to get by accurate and well done histories and physical examinations. Without them modern medical practice will never be at its peak of performance.

The introduction was of great interest with its account of Auenbrugger's introduction of percussion and Laennec's observation of children at play transmitting sound through a wooden beam, a simple observation which led to his invention of the stethoscope.

The comments on history and physical examination are well organized, and if the recommendations were observed to the point recommended, the record committees of our hospitals and all of the personnel therein would rejoice with thanksgiving.

The discussion of pain was interesting particularly because of the historical connections cited. For instance, Harvey some three centuries ago showed the heart to be insensible to pain, and yet some heart affections are accompanied by pain such as angina pectoris.

The sections on "General Inspection," "Examination of the Head and Neck," "Palpation and Percussion of the Chest," and "Physical Findings in Diseases of the Lungs" are replete with information. It leaves one a bit reflective and, of more consequence, a better examiner of the patients for whom he is responsible. The reviewer finds himself paying a great deal more attention to patients as they pass through for examination.

The book is a storehouse of information for ready usefulness and reference to any practitioner of medicine.

Discussions on abdomen and genitalia, extremities, and the nervous system are not as extensive as those devoted to the chest, but they nevertheless cover a vast amount of material the enormity of which can be ascertained only by a perusal of this valuable addition to our medical literature. The University of Kansas is setting a mark which the rest of us might do well to emulate.

—Joe C. Rude, M. D., Austin.

Histamine

Ciba Foundation Symposium jointly with The Physiological Society and The British Pharmacological Society, in honour of Sir Henry Dale, M.D., F.R.C.P., F.R.S. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.Ch. *and* CECILIA M. O'CONNOR, B.Sc., *editors for the Ciba Foundation. 472 pages. Boston, Little, Brown and Company, 1956.*

Functional Otology, The Practice of Audiology

MORRIS F. HELLER, M. D., *Assistant Attending Otolaryngologist for Audiology, Chief of the Audiology Clinic, Mount Sinai Hospital, New York, with* BERNARD M. ANDERMAN, M. A., *and* ELLIS E. SINGER, M. A. *225 pages. $5.50. New York, Springer Publishing Company, 1955.*

This book is ideal for the purpose for which it is intended. It is an excellent reference book for any otolaryngologist, aiding him in the tracing of functional hearing of his patients. The physical requirements for the testing areas are presented in a manner that takes nothing for granted and should enable one to explore fully the hearing up to the point of our present knowledge.

This book presents a plan for establishing a speech and hearing center, with a step by step arrangement for testing, as well as an outline of the personnel and equipment needed.

The chapter on deafness of nonorganic origin, along with its exploration by the various testing maneuvers, is brief and extremely well presented.

No attempt at medical or surgical therapy is included or intended.

—J. E. Witcher, M. D., Amarillo.

Basic Principles of Parliamentary Law and Protocol

MARGUERITE GRUMME, *registered parliamentarian. 68 pages. $1. 3830 Humphrey Street, St. Louis 16, author, 1955.*

Urology and Industry

LEONARD PAUL WERSHUB, M. D., F.A.C.S., *Associate Professor of Urology, New York Medical College, Metropolitan Medical Center, New York. 151 pages. $5. Springfield, Ill., Charles C Thomas, 1956.*

I enjoyed reading this excellent book relating to urological compensation claims. This book describes 100 industrial urological cases, some of which are renal calculus, hematuria of renal origin, acute and chronic pyelonephritis, cancer of the kidney, tuberculosis of the kidney, prostatic disorders, toxic poisoning of the kidney, and impotence and sterility.

There is also a chapter on legal and medical evaluation of causal relation which emphasizes that the physician evaluating an industrial case must be thoroughly familiar with the pathogenesis of disease. The physician must not assume causal relation just because an accident has occurred. Quoting Dr. Wershub, "He must thoroughly study the manner in which the accident or exposure occurred; determine the basic pathologic process, make a diagnosis and then determine causal relation, extent of disability, and indicated treatment."

I highly recommend this book and feel that physicians who examine industrial cases from a urological standpoint should read this publication.

—J. K. Leverett, M. D., Fort Worth.

Personal Health Record

CARL A. DRAGSTEDT, M. D., Ph. D., *Northwestern University Medical School. 64 pages. $1. Harrisburg, Pa., Military Service Publishing Company, 1956.*

Bellevue Is My Home

SALVATORE R. CUTOLO, M.D., *with* ARTHUR *and* BARBARA GELB. *317 pages. $4. Garden City, Doubleday & Company, Inc., 1956.*

ORGANIZATION SECTION

Transactions

Ninetieth Annual Session

Texas Medical Association

Dallas, April 27-May 1, 1957

MINUTES OF THE HOUSE OF DELEGATES —FIRST MEETING

[The House of Delegates of the Texas Medical Association convened at 8 p. m., Saturday, April 27, 1957, in the Ballroom of the Baker Hotel, Dallas, Texas.]

Dr. Hobart O. Deaton, Fort Worth, Speaker of the House: Will the delegates please be in order. Dr. Drue Ware is chairman of the Committee on Credentials. Does Dr. Ware have a report?

Dr. Drue Ware, Fort Worth: We have 105 registered.

Dr. Deaton: We have a quorum present.

MEMBERSHIP OF HOUSE OF DELEGATES

[The membership of the House of Delegates established by the Reference Committee on Credentials at this and subsequent meetings follows. The number after the name of the county society indicates the number of delegates for which the society was eligible; the numbers after the name of a delegate indicate the meetings (1, Saturday night; 2, Sunday night; 3, Wednesday morning) for which the delegate was seated.]

[At the first meeting 161 persons were present with 122 seats of elected delegates and 48 seats of ex officio members filled (2 elected delegates also were ex officio members and 7 ex officio members held other ex officio memberships). At the second meeting, 158 were present, including 123 elected delegates and 44 ex officio (2 elected delegates also were ex officio and 7 ex officio members held other ex officio memberships). At the third meeting, 149 were present, including 111 elected delegates and 47 ex officio members (2 elected delegates also were ex officio members and 7 ex officio members held other ex officio memberships).]

[EDITOR'S NOTE: *Throughout the Transactions brackets indicate explanatory material not included in the verbatim report.*]

Elected Delegates

Anderson-Houston-Leon, 1.—R. H. Bell, 1, 2.

Andrews-Ector-Midland, 1.—Henrie E. Mast, 1, 2, 3.

Angelina, 1.—L. H. Denman, 1, 2, 3.

Armstrong-Donley-Childress-Collingsworth-Hall-Wheeler, 1.—J. A. Odom, 1, 2, 3.

Atascosa, 1.—

Austin-Waller, 1.—

Bastrop-Lee, 1.—

Baylor-Knox-Haskell, 1.—T. S. Edwards, 1, 2, 3.

Bee-Live Oak-McMullen, 1.—

Bell, 1.—G. V. Brindley, Jr., 1, 2, 3.

Bexar, 6.—Jack B. Lee, 1, 2, 3; A. Fletcher Clark, Jr., 1, 2, 3; L. Bonham Jones, 1, 2, 3; J. M. Partain, 1, 2, 3; G. B. Milburn, 1, 2, 3; D. B. Jones, 1, 2, 3.

Borden-Dickens-Garza-Kent-King-Scurry-Stonewall, 1.—

Bosque, 1.—Van D. Goodall, 1, 2; J. T. Archer, 3.

Bowie, 1.—C. A. Smith, 3.

Brazoria, 1.—R. E. Gray, 1, 2, 3.

Brazos-Robertson, 1.—W. C. Taylor, Jr., 1, 2.

Brooks-Duval-Jim Wells, 1.—Riley N. Riddle, 1, 2.

Brown-Comanche-Mills-San Saba, 1.—S. B. Locker, 1, 2, 3.

Caldwell, 1.—

Cameron-Willacy, 2.—Hunter L. Scales, 1, 2, 3; D. D. Lancaster, 1, 2, 3.

Camp-Morris-Titus, 1.—J. E. Ball, 2, 3.

Cass-Marion, 1.—Joe D. Nichols, 1, 2.

Cherokee, 1.—G. M. Hilliard, 1, 2, 3.

Clay-Montague, 1.—J. E. Latham, Jr., 2.

Coleman, 1.—Roy R. Lovelady, 1, 2, 3.

Collin, 1.—

Colorado-Fayette, 1.—W. G. Youens, 1, 2.

Comal, 1.—A. W. C. Bergfeld, 1, 2.

Cooke, 1.—A. M. Finlay, Jr., 1, 3.

Coryell, 1.—E. E. Lowrey, 3.

Crane-Upton-Reagan, 1.—

Dallam-Hartley-Sherman-Moore, 1.—

Dallas, 11.—F. W. Horn, 1, 2, 3; Murphy Bounds, 1, 2, 3; Arnott DeLange, 1, 2, 3; Glenn D. Carlson, 1, 2, 3; G. T. Denton, Jr., 1, 2, 3; Ridings E. Lee, 1, 2, 3; David W. Carter, Jr., 1, 2, 3; Frank H. Kidd, Jr., 1, 2, 3; George M. Jones, 1, 2, 3; Oscar Marchman, Jr., 1, 2, 3; B. E. Park, 1, 2, 3.

Dawson-Lynn-Terry-Gaines-Yoakum, 1.—A. H. Daniell, 1, 2, 3.

Denton, 1.—J. H. Jones, 1, 3.

DeWitt, 1.—F. A. Prather, 1, 2, 3.

Eastland-Callahan-Stephens-Shackelford-Throckmorton, 1.—P. M. Kuykendall, 1, 2.

Ellis, 1.—Herbert Donnell, 1, 2, 3.

El Paso, 3.—M. D. Thomas, 1, 2, 3; R. L. Deter, 1, 2, 3; R. S. Clayton, 1, 2, 3.

Erath-Hood-Somervell, 1.—Vance Terrell, 1; Thomas F. Bryan, 3.

Falls, 1.—J. M. Brown, 1, 2, 3.

Fannin, 1.—

Freestone, 1.—

Galveston, 3.—W. T. Anderson, 1, 2, 3; E. J. Lefeber, 1, 2, 3; J. C. Magliolo, 1, 2, 3.

Gonzales, 1.—Odon F. von Werssowetz, 2, 3.

Gray-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson, 1.—Joe R. Donaldson, 1, 2, 3.

Grayson, 1.—G. S. Rowlett, Jr., 1, 2, 3.

Gregg, 1.—George W. Tate, 1, 2, 3.

Grimes, 1.—S. D. Coleman, 1, 2.

Guadalupe, 1.—
Hale-Floyd-Briscoe, 1.—H. J. Harvis, 1, 2, 3.
Hardeman-Cottle-Foard-Motley, 1.—A. C. Traweek, 2, 3.
Hardin-Tyler, 1.—W. J. Poshataske, 2.
Harris, 13.—A. E. Greer, 1, 2; George W. Waldron, 1, 2, 3; C. F. Jorns, 1, 2, 3; W. H. Hamrick, 1, 2, 3; J. S. Oliver, 1, 2, 3; Bill Robins, 1, 2; Thomas J. Vanzant, 1, 2, 3; Charles D. Reece, 1, 2; T. P. Kennerly, 1, 2; H. T. Barkley, 1; H. E. Prince, 1, 2; J. H. Wootters, 1, 2, 3; Thomas L. Royce, 1, 2, 3; W. M. Sherrill, 3; Herbert H. Duke, 3; W. F. Renfrow, 2, 3.
Harrison, 1.—R. G. Granbery, 1, 2, 3.
Hays-Blanco, 1.—
Henderson, 1.—L. L. Cockerell, 1, 2, 3.
Hidalgo-Starr, 1.—M. R. Lawler, 2.
Hill, 1.—Dick K. Cason, 1, 2, 3.
Hopkins-Franklin, 1.—O. C. Walling, Jr., 1, 2, 3.
Howard-Martin-Glasscock, 1.—J. E. Hogan, 1, 2, 3.
Hunt-Rockwall-Rains-Delta, 1.—E. T. Crim, 1, 2.
Jasper-Newton, 1.—J. W. Dickerson, 1.
Jefferson, 3.—L. C. Carter, 1, 2; W. P. Robert, 1, 2; T. B. Matlock, 1, 2, 3.
Johnson, 1.—T. F. Yater, 2, 3.
Karnes-Wilson, 1.—
Kaufman, 1.—G. H. Alexander, 1, 2, 3.
Kerr-Kendall-Gillespie-Bandera, 1.—D. R. Knapp, 1, 2, 3.
Kimble-Mason-Menard-McCulloch, 1.—A. M. McCulloh, 1, 2, 3.
Kleberg-Kenedy, 1.—C. B. Lambeth, 1, 2, 3.
Lamar, 1.—N. L. Barker, 3.
Lamb-Bailey-Hockley-Cochran, 1.—W. C. Nowlin, 1, 2, 3.
Lampasas-Burnet-Llano, 1.—R. L. Shepperd, 1, 2, 3.
LaSalle-Frio-Dimmit, 1.—B. E. Pickett, Sr., 1, 2, 3.
Lavaca, 1.—G. A. Spikes, 1, 3.
Liberty-Chambers, 1.—A. L. DeLaney, 1.
Limestone, 1.—
Lubbock-Crosby, 2.—Allen T. Stewart, 1, 2.
McLennan, 2.—E. B. Fine, 1, 2; W. M. Avent, 1, 2, 3.
Medina-Uvalde-Maverick-Val Verde-Edwards-Real-Kinney-Terrell-Zavala, 1.—D. P. Dimmitt, 1, 2.
Milam, 1.—
Montgomery, 1.—
Nacogdoches, 1.—Stephen B. Tucker, 1, 2, 3.
Navarro, 1.—P. H. Mitchell, 2, 3.
Nolan-Fisher-Mitchell, 1.—Tom A. Young, 1, 2; Robert Price, 3.
Nueces, 2.—J. R. Riley, 1, 2, 3; Y. C. Smith, 3.
Orange, 1.—F. W. Wilson, 1, 2, 3.
Palo Pinto-Parker-Young-Jack-Archer, 1.—H. E. Griffin, 1, 2.
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Runnels, 1.—C. F. Bailey, 2.
Rusk, 1.—Lloyd Deason, 1, 2, 3.
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Shelby-San Augustine-Sabine, 1.—
Smith, 1.—M. J. Lee, Jr., 1, 2, 3.
Tarrant, 5.—T. L. Shields, 1, 2, 3; Mal Rumph, 2, 3; James D. Murphy, 1, 2, 3; E. P. Hall, Jr., 1, 2, 3; Drue O. D. Ware, 1, 2, 3; R. C. Stow, Jr., 1.
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Washington-Burleson, 1.—G. V. Pazdral, 1, 2, 3.
Webb-Zapata-Jim Hogg, 1.—J. G. Cigarroa, Jr., 1, 2; J. S. Reitman, 3.
Wharton-Jackson-Matagorda-Fort Bend, 1.—L. B. Johnson, 1, 2, 3.
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Williamson, 1.—Dr. J. J. Johns, 1, 2, 3.
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Chairman, Council on Medical Economics.—Harvey Renger, Hallettsville, 1.
Chairman, Council on Medical Education and Hospitals.—Albert W. Hartman, Jr., San Antonio.
Chairman, Council on Constitution and By-Laws.—John F. Thomas, Austin, 1, 2, 3.
Chairman, Committee on Public Relations.—Joe R. Donaldson, Pampa, 1, 2, 3.

Dr. Deaton: Gentlemen, will you please stand for a quiet moment.

Eternal Father of our souls, grant to the officers and members of this body a sacred moment of quiet as they take up the affairs of this Association and the tasks which are imposed upon them; make us mindful of Thy will and thankful that we have been matched with this hour. Give us courage and faith and a quiet mind. We ask it in the Master's name. Amen.

Gentlemen, be seated.

Those of us who engage in these sessions have both a privilege and a responsibility, because we represent the doctors of Texas. What is ordered or approved here becomes the will of the Texas Medical Association.

You have been furnished a list of the reference committees. [The list follows.]

REFERENCE COMMITTEES

Reference Committee on Credentials.—Drue Ware, Fort Worth, Chairman; Richard Granbery, Marshall, Vice-Chairman; Dwight R. Knapp, Kerrville; Dean Dimmitt, Uvalde; Thomas Royce, Houston; J. W. Atchison, Gainesville; E. D. Jones, Beaumont; Paul H. Mitchell, Corsicana; H. A. Baker, Wills Point.

Reference Committee on Reports of Officers and Committees.—D. W. Carter, Jr., Dallas, Chairman; Herbert Donnell, Waxahachie, Vice-Chairman; C. B. Lambeth, Kingsville; Tom Kennerly, Houston; M. T. Braswell, Henderson; D. J. Sibley, Fort Stockton; W. M. Avent, Waco; R. W. Clayton, El Paso; G. M. Hilliard, Jacksonville.

Reference Committee on Resolutions and Memorials.—Russell L. Deter, El Paso, Chairman; Madison Lee, Tyler, Vice-Chairman; E. E. Lowery, Gatesville; E. J. Lefeber, Galveston; Cecil L. Robinson, Kermit; J. M. Partain, San Antonio; J. D. Hall, Wichita Falls; C. A. Smith, Texarkana; R. H. Bell, Palestine.

Reference Committee on Finance.—A. T. Stewart, Lubbock, Chairman; Charles B. Reece, Houston, Vice-Chairman; E. A. Rowley, Amarillo; Jack B. Lee, San Antonio; T. D. Young, Sweetwater; R. L. Johnson, Pittsburg; T. S. Edwards, Knox City; W. C. Taylor, Calvert; Sam Key, Jr., Austin.

Reference Committee on Constitution and By-Laws.—John F. Thomas, Austin, Chairman; William Klingensmith, Amarillo, Vice-Chairman; J. C. Magliolo, Dickinson; Frank Kidd, Dallas; Lloyd Deason, Henderson; Mal Rumph, Fort Worth; R. W. Varner, Abilene; J. J. Slaugenhop, Vernon.

Reference Committee on Scientific Work.—J. D. Murphy, Fort Worth, Chairman; G. V. Brindley, Jr., Temple, Vice-Chairman; Dick Cason, Hillsboro; George W. Waldron, Houston; M. D. Thomas, El Paso; J. E. Hogan, Big Spring; E. T. Crim, Greenville; J. R. Riley, Corpus Christi; W. C. Bergfeld, New Braunfels.

Reference Committee on Medical Service and Public Relations.—F. C. Lowry, Austin, Chairman; John H. Wootters, Houston, Vice-Chairman; J. C. Terrell, Stephenville; E. T. Driscoll, Midland; G. V. Pazdral, Somerville; Glenn Carlson, Dallas; John Smith, Jr., San Antonio; Van D. Goodall, Clifton; L. B. Johnson, El Campo.

Dr. Deaton: The reference committees are supposed to meet at 10 o'clock and at 2 o'clock tomorrow. The sessions of these various committees are open to any member of the Association and the chairman may summon officers or members of the various councils if he needs information. These sessions are more informal than the sessions of the House, but they should be conducted along parliamentary line, especially where controversial matters are involved. Minutes may be kept, but please do not incorporate your minutes in the chairman's report to the House. State briefly the business and whether you do or do not recommend its approval by the House. Or the committee may in some cases submit the matter to the House without recommendation. The report of the chairman is the report of the committee. A member or members may make a minority report. They should make known such intention to the chairman while the committee is in session and refrain from signing the majority report. Such a minority report may be offered as a substitute motion and will be treated as such. This is a dignified procedure and in perfect order. Noisy minorities are not popular in this House.

The Chair would like to recognize everyone personally, but due to change of faces and infrequent meetings this is impossible. As you come to the microphone please hand a copy of your report or resolution to our reporter and identify yourself so that he may keep up with the proceedings and record them correctly.

On occasion members have complained that they have difficulty in hearing because the neighbors are having a conference. Please seek a conference room or the foyer for conversations.

On page 3 of the Handbook, you find the Agenda. This will be followed with few exceptions. Our first session will have to conclude with item 19. Item 20 usually takes up the time of our second meeting. As it now stands the remainder of the business will be concluded Wednesday morning.

No new business may be introduced on the last day except by the Board of Trustees, Board of Councilors, or a scientific section, or upon unanimous consent of the House.

I have been a member of the House many years. I have participated in some difficult and trying sessions. My philosophy as gained from experience and study is simple. We are here to do what the majority of this assembly wishes to do. In so doing we take one thing at a time; we refrain from taking sides in partisan or controversial matters. We shall try to observe and demand fairness and courtesy for everyone. We intend to follow the Constitution and By-Laws, and to use Robert's "Rules of Order" as an aid and not a handicap to our procedure. An appeal from the ruling of the Chair is welcome. This House can very shortly inform the appellant what it wills to do.

We have some tellers that I wish to appoint at this time. I want to ask Dr. C. E. Oswalt, Fort Stockton, to serve as chairman of the tellers with Dr. T. L. Shields, Fort Worth; Dr. William M. Klingensmith, Amarillo; Dr. W. B. Veazey, Huntsville; and Dr. R. W. Varner, Abilene.

[Upon motion from the floor, reading of the minutes of the last session was omitted, the same having been published in the *Journal*.]

Dr. Deaton: Gentlemen, it is my privilege to present to you at this time the President of the Texas Medical Association, Dr. Milford O. Rouse, Dallas.

PRESIDENTIAL ADDRESS

Dr. Rouse: Your President wishes to express his deepest appreciation for the wonderful cooperation of the 7,600 members of the Texas Medical Association for the past year—particularly for the work of the many committees and of the central office. He does not regard the year as one of any sensational accomplishments but hopes that it has been one of solid constructive effort as the fruit of hard work of all of us. Permit him to make a few comments based on his experiences of the year.

1. Increased Membership of Committees

The House of Delegates last year authorized an increase in membership from five to 10 of the important Committees on Mental Health, Tuberculosis, Cancer, and Industrial Health. This has resulted in better attendance and better work. By the same token, your President feels that the proposal of the

Council on Constitution and By-Laws to amend the By-Laws to make standing committees of 10 members each on Scientific Exhibits, School-Physician Relationships, and Rural Health and Doctor Distribution is sound. Suggestion is made that with profit the membership of the Council on Medical Education and Hospitals could be increased to 10, with at least two of the 10 members being general practitioners or doctors away from teaching medical centers.

2. Committees on Military Medical Affairs and Nuclear Medicine

Incidentally, from his observations of the year, your President would like to suggest to the incoming President and to the House of Delegates the possible creation of a Committee on Military Medical Affairs and a Committee on Atomic or Nuclear Medicine. These two areas present problems and possibilities that should warrant special groups to work with them.

3. Vice-Presidency

The proposal of the Council on Constitution and By-Laws of a possible elimination of the position of Vice-President of the Association, which proposal apparently is not being urged strongly by the Council, does not seem wise in the opinion of your President. The Vice-President this year has been a valuable member of the team to represent the Association officially on several occasions. A division of work between the President, the President-Elect, and the Vice-President can be arranged by mutual agreement without any undue burden on any one individual. Your President also would not favor an arrangement whereby the Vice-President would in turn become President-Elect, because three years of concentrated work could easily become a burden. The Vice-President should be eligible for consideration in the election of the President-Elect, however. Our Vice-Presidents have been men of outstanding ability, and we should continue to exercise care in electing capable men of proven faithfulness; but there is virtue in considering a proposal that in the case of the death or disability of the President, the chairman of the Board of Trustees could serve as President Pro Tempore, until the next meeting of the Executive Council or House of Delegates, whichever comes first. In case of the death or disability of the President-Elect or Vice-President, likewise the chairman of the Board of Trustees could assume any necessary duties of that post until the next meeting of the Executive Council or House. It would be well for the Executive Council to be able to consider advancing the President-Elect to the office of President in case of the death or disability of the President.

4. Delinquency in Payment of Dues

May your President also point out that there are provisions in the By-Laws pertaining to lapse in membership that are not being followed or are incomplete. For example, according to the By-Laws, members of the Texas Medical Association shall be considered as having forfeited their membership on January 1 of the new year if their dues have not been paid by that time. This is an unrealistic provision, and it is being almost totally disregarded by all of the societies. It is desirable that detailed consideration should be given to: (1) the establishment of a more realistic date, such as April 1, upon which membership is terminated with adequate procedures for effecting termination; (2) a determination of the exact status of the member during this period of suspension; and (3) the procedures a suspended member must follow to become reinstated and whether or not he is subject to provisional status at the time he is reinstated. Your President would like to suggest that these questions be referred to the Council on Constitution and By-Laws for its evaluation during the coming year, and that the Council present its recommendations to the House of Delegates in 1958.

5. Intern and Resident Members

Increasingly we are trying to interest young physicians, even in their intern and residency years, in becoming members of a county medical society. Last year the House of Delegates passed a constitutional amendment to restrict intern and resident members from the right to vote or hold office, primarily to insure that in any county with a large intern or resident membership, seasoned men would be sure to direct the destiny of that society. Your President cannot refrain from expressing a hope that the House will disapprove the resolution to be voted on at this session, which would amend the Constitution further to restrict intern and resident members in that they would not be able to endorse applications for membership or serve as delegates, which latter eventuality would probably never occur. We need to give more incentive to our intern and resident members to enlist their fellows in active association with a county medical society.

6. Indoctrination

During this current year, some new committees have performed splendid services. Particularly the Committee on Indoctrination staged a very excellent indoctrination program held at the time of the meeting of the Executive Council in January. A review of the comments heard this year leads your President to offer the following suggestions for modification of the indoctrination requirements, which would be implemented by a simple revision of the last paragraph of Chapter X, Section 4, of the By-Laws, namely:

a. If a physician who has transferred from one county society to another has been a regular member in good standing of the Texas Medical Association for as much as five years, he could be invited but not required to attend an indoctrination program given under the auspices of the Committee on Indoctrination with due regard being given to any indoctrination provisions of a county medical society concerned.

b. If a county medical society has in operation a comprehensive indoctrination program of its own, the Committee on Indoctrination of the Texas Medical Association could consider such a program as fulfilling the requirements for attendance by provisional members of that particular county medical society.

c. Qualifying indoctrination programs might be offered at each annual session of the Texas Medical Association just like a refresher course. This would be of special convenience to physicians who are Seventh Day Adventists and to physicians who are residents of sections distant from Austin. Attendance at an annual session should be a stimulating indoctrination to any physician.

7. American Medical Association Membership

Texas physicians have made a commendable advance in the number of members qualifying for active membership in the American Medical Association, but there are still about 600 men who should be bearing their part of the expense of the work done by the American Medical Association for the health of our country and for all physicians, by paying their annual AMA dues of $25, which brings to them any of the scientific publications of the AMA and other definite services. Your AMA delegates and alternate delegates are going to launch an active program of enlistment of these 600 men, and ask the support of everybody in making the campaign a success.

8. Principles of Medical Ethics

Incidentally, the latest revision of the proposed new Principles of Medical Ethics of the American Medical Association appeared on page 1364 of the *Journal of the American Medical Association* of April 13, 1957. Every doctor should read this carefully and pass on to your AMA delegates any opinions you have on the proposed new Principles.

9. Exhibits

The central office staff, the Council on Scientific Work, and the Committee on Scientific Exhibits have arranged the largest and best array of technical and scientific exhibits in the history of the Association. The quality of a medical meeting may be measured by the standards of its exhibits, and every delegate and physician at the annual session will profit from at least a half day spent in the exhibits, with personal appreciation expressed to the exhibitors.

One of the greatest obligations and opportunities for Texas physicians is in the field of closer, more intelligent, and more practical cooperation with various medical groups, paramedical groups, and other professions, and the lay-sponsored health groups, in addition to cooperating with government, as far as we can with honor and good conscience.

10. Woman's Auxiliary

First comes the splendid Woman's Auxiliary to the Texas Medical Association, made up of our wives, who not only mean much in maintaining our personal happiness and morale, but are also valuable allies in the way of public relations. The Texas Auxiliary carries on a very worth-while program. For several years the activities among Future Nurses groups and in observance of Doctor's Day have been commendable. This year the Auxiliary is sponsoring science fairs throughout the state and a health fair in Dallas during our annual session, which are proving most worth while. Every married doctor in Texas should personally urge his wife to become an active member of the Auxiliary—and it could be hoped that the Auxiliary might make some provision for a sister or some other woman relative of unmarried physicians to become actively interested in the Auxiliary. Only California exceeds the Texas Auxiliary in membership, and with a little extra effort on the part of physicians, Texas could lead the nation in Auxiliary membership. A few county medical societies in Texas, as in Potter County, have a provision for the collection of dues for the Auxiliary at the same time of the collection of dues for the county society. This plan merits consideration by other county medical societies.

11. Public Health

Texas has made real progress in recent years in the matters of public health, under the aggressive leadership of the new Commissioner of Health, Dr. Henry A. Holle. Doctors have a definite obligation to their communities in the way of preventive medicine, and in the way of cooperating with problems of sanitation, the health of the medically indigent, and related matters. The various health departments covet the genuine cooperation of private practitioners, and private practitioners unwittingly foreshorten their own service to the community if they do not try to cooperate willingly with recognized health department policies on the city, county, and state levels. Texas is a great state, with commendable high standards of medical care. It is to be hoped most sincerely that any changes that may be needed will be preceded by several years of careful study and exchange of thinking between public health men and private practitioners. In relation to needed legislation, it is highly in order that proposals be reviewed with the proper groups of the Texas Medical Association, and other groups with a bona fide interest, long before time for presentation to the Legislature. Texas physicians have great confidence in the members of the State Board of Health and look to them to set safe policies of orderly growth and expansion of services for the State Department of Health. There will doubtless always be room for improvement, but such improvement can be done in an orderly manner, winning the increasing confidence and cooperation of private practitioners.

12. New Medical School

Much interest is being displayed in the state concerning the need for a fourth medical school in Texas, suggested as a third medical branch of the University of Texas, located in Bexar County. At the January meeting the Executive Council recognized such a need. Texas now has approximately 9,000,000 citizens, and before a fourth school could be actually graduating new physicians, the population of the state would be well over 10,000,000. Additional graduates will be required if we continue to supply our state with the men needed to take care of the health needs of Texas, particularly in the field of industrial medicine and of public health.

On two premises there should be a unanimity of thinking: (a) It is highly in order for a comprehensive, objective study to be carried out in the next 18 months of medical education needs and medical education facilities in the State of Texas, both by the continuing efforts of the Council on Medical Education and Hospitals of the Texas Medical Association and by other groups, such as the Texas Commission on Higher Education. (b) The next premise is that when another medical school materializes in Texas, the logical site is San Antonio, in Bexar County, with a recognized medical center and an abundance of hospital beds available for clinical teaching, a large number of capable clinical teachers, a demonstrated community interest in the way of two scientific foundations, and the proffered cooperation of the biggest military medical installations in the world. Incidentally, an objective impartial study of medical education problems should also include a review of whether or not Texas is imposing an undue teaching burden on the Medical Branch of the University of Texas at Galveston in requesting freshman classes of 165 members, far beyond the average optimum number for freshman classes. Texas physicians have an obligation to look ahead and take the lead in planning to meet developing needs in medical education as our great state grows.

13. Funds for Medical Education

Texas citizens, particularly through Legislative appropriations for the two state schools, support the present three medical schools very commendably. The ever-present threat of federal encroachment reminds every Texas physician to invest generously and annually in the American Medical Education Foundation. There has been activated the Texas Medical Research Foundation with a statewide basis of support and of usefulness. Every physician has the possibility of influencing some patient or other friend to make a worthwhile financial contribution to medical education through the foundation mentioned or through our own American Medical Education Foundation. The cooperation of industry and public-spirited citizens through the National Fund for Medical Education is also appreciated.

14. Medical Assistants

Recently there was organized the Texas Medical Assistants Association, made up of the fine young ladies who work with us daily in our offices and in our hospitals. Every physician will profit if he will encourage his assistants to

join or to aid in launching a local chapter of this group. Elsewhere at our meeting will be found a booth where information may be secured.

15. Tuberculosis

The Texas Medical Association has had a worthy part in the launching of the Texas Coordinating Council on Tuberculosis, which was an outgrowth of the preparation and publication of Searchlight on TB. The statewide council is now encouraging the formation of a coordinating council on tuberculosis in each county. The state group also has recognized the imperative need of a recodification of the laws of Texas that have to do with tuberculosis and tuberculosis control. A thorough review and preparation of proposed new laws are needed, which will cost money. A capable group to make the study is available, and the Texas Tuberculosis Association has appropriated $5,000 for its part of the cost of the study. Texas Medical Association should carry its part of the load, and it is to be hoped that either the Board of Trustees or the House of Delegates will authorize a worthy part of the expense to be paid by the Texas Medical Association.

16. Commission on Patient Care

A significant event of the past year has been the activation of the Texas Commission on Patient Care, as the result of several years of cooperative planning by a committee from the Texas Medical Association, the Texas Hospital Association, the Texas Graduate Nurses Association, and the Texas League for Nursing. Incidentally, the Woman's Auxiliary to the Texas Medical Association and the Private Clinics and Hospitals Association have now been brought into the work of the commission. Texas doctors have a definite and considerable stake in the potential objectives of the commission. All of us are interested in our patients getting even better care, not only by us but by our office assistants, by the nursing and administrative staffs of our hospitals, and by the other paramedical groups who have much to do with helping us to care for sick people. One of the greatest hindrances to optimum patient care now is a deficiency of personnel, and the big objective of the commission to interest young people in health careers gives the best hope for meeting this deficiency. The day may even come when we need to challenge more vigorously the brightest minds of our high schools to consider the study of medicine.

Anything worth while must be paid for by the groups sponsoring it, and if we, as physicians, expect to continue to participate in the fruits of the Commission on Patient Care, we must bear our part of the financial cost. The Trustees of the Texas Medical Association were very generous in their support in 1956 and 1957. We invited individual physicians and clinics likewise to invest financially in the support of the commission's work, and the response was not great.

Texas physicians time and again have expressed concern over a suspected tendency of laymen, lay groups, and even some paramedical groups to expand their activities more and more into the field of the practice of medicine. If, at any time, we physicians default by failing to carry our part of the load, is it not inevitable that we invite those other than physicians to take a more and more active hand?

The Texas Medical Association now has an active Committee on Patient Care, members of which also constitute our representatives on the Commission on Patient Care. In the humble judgment of your President, it is clearly a responsibility of Texas doctors to carry their load of the financial support of the commission, which proportionate part for physicians will be at least $1 per member per year. The House of Delegates and the Trustees must face this problem in a realistic manner and either provide the money or accept the results of our default if we do not come through adequately.

17. Gerty Report

The Texas Medical Association has had the privilege of rendering a real service to our commonwealth in recent months by sponsoring a consultation study on mental health needs in Texas by Dr. Francis J. Gerty of Chicago, an eminent psychiatrist.

A copy of the Gerty report is available for each delegate and copies may be had upon request. The suggestions of Dr. Gerty, both for immediate and long-range action, are sensible. The members of the current Legislature and the members of the Board for Texas State Hospitals and Special Schools have been cordial and receptive, and there should be passed soon the proper legislation which will activate the first of the recommendations of Dr. Gerty.

The cost of the consultation was borne by several foundations and civic-minded individuals of Texas. Your President would like the adoption of this part of his address to constitute an expression of sincere appreciation to these donors, to the Legislature, to the Board for Texas State Hospitals and Special Schools, and the dozens of other individuals who gave so freely of their time and thinking in the Gerty consultation—and real thanks to Dr. Gerty.

18. Mental Health Code

It is anticipated that the new Mental Health Code for our state will soon become an actuality in the hands of the Legislature. Parenthetically, a valuable lesson was learned in that it is well for close scrutiny to be made of even the best prepared legislation proposed, so that quick successful harmonious enactment of the legislation may become a reality.

19. Mass Disaster Casualties

Our Committee on National Emergency Medical Service had the unique experience of cooperating in "Operation Rebound" on March 29, where practical demonstration was given of the handling of mass disaster casualties, in cooperation with Baylor University College of Medicine, the Medical Branch of the University of Texas, and some civil defense groups in the Houston area. The Texas City disaster of 10 years ago and the recent tornado in Dallas could be duplicated in any community, and we need to set ourselves to the task of better informing ourselves on what to do with possible mass disaster casualties.

20. Bracero Medical Care

A special committee from the Texas Medical Association is studying the problem of bracero medical care. The problem has many ramifications. This committee has secured much valuable information, and should be continued on its mission.

21. Rapport with School and Press

Our proffered services to school administrations are being increasingly appreciated and utilized under the direction of our Committee on School-Physician Relationships. Likewise, we are enjoying even better rapport with the press of the state. The first Anson Jones award to be made May 1 will be a concrete evidence of the fine cooperation we have with journalists in Texas.

22. Code for Medicine and Law

Our special Committee to Study Liaison with the State Bar of Texas, under the able leadership of Dr. John Skog-

land, has done a remarkable piece of work. Medicine and law are two professions with many overlapping responsibilities and associations. There is a pressing need for us to get together on grounds of mutual understanding to facilitate the solution of problems common to both groups. Each delegate has a copy of the so-called Wisconsin Code, which has many admirable provisions that should apply equally well in Texas. The Wisconsin Code has no punitive provisions but instead makes it clear that any alleged infractions of understanding will then be handled through the usual channels of either the medical association or the lawyers' group as the case might be. Your President most earnestly hopes that the House will authorize a committee to proceed with the preparation of a possible code, based on the Wisconsin Code, in collaboration with a similar group from the State Bar of Texas. The result of their labors can be considered at a proper meeting of the Executive Council.

23. Health Insurance

The Texas Medical Association has a harmonious and successful plan of cooperation with the insurance companies of the state for adjudication of possible disputes. It is usually wise for any disputes to be lifted out of local areas, and our plan of a statewide group to handle these matters is ideal. Texas physicians will always be interested in encouraging as near 100 per cent participation as possible by all citizens in voluntary prepayment health and hospital insurance plans. There is a problem in Texas, as elsewhere, of possible inequities when patients may have multiple insurance policies which in some instances might make it possible for a patient actually to make money by being ill. Several states have worked out equitable plans and our Council on Medical Economics will doubtless continue its study of the problem.

24. Lay-Sponsored Health Groups

Physicians will always have the responsibility and obligation of proper collaboration with the predominantly lay-sponsored health groups, such as the American Red Cross, the American Cancer Society, and the National Foundation for Infantile Paralysis. By and large, the laymen who participate in these worth-while movements are sincerely interested in the welfare of citizens and are happy to work harmoniously with the medical profession. In the field of blood banks, there is a definite need to try to see that the American Red Cross or any lay group does not invade the field of the practice of medicine. In cancer activities, the organizational set-up in Texas now makes it possible for the medical profession to assume the major responsibility in determining policies of the Texas Division of the American Cancer Society.

Many problems have arisen in recent months in connection with the enthusiastic campaign to enlist as many people as possible in Salk vaccinations, and it is a compliment to the doctors of this country that when they swung into action, the vaccine which had been idling on shelves was quickly utilized. Many problems have had to be faced in recent months in the nationwide campaign of Salk vaccinations, and such problems will arise again, so possibly the following observations may be worthy of consideration. It will be well for the medical profession to try to foresee by at least several months any campaign for widespread health measures such as polio vaccination. In such an instance, it is to be hoped that representatives of county medical societies on a local level will succeed in having frank friendly discussions with the prominent lay people of the community who are behind any particular health movement largely sponsored by laymen. Physicians can with truth point out the fact that biological or similar agents can never be used with safety except under the closest supervision of competent physicians, who then take the responsibility for the safety and the proper recording of inoculations. Likewise, in the field of economics, physicians can reason out with intelligent laymen that there is no more reason for undeserved charity in medical care than for undeserved charity in the dispensing of newspapers, shoes, gasoline, or fire insurance. Physicians are happy to give generously of their time and skill, but prefer to make their own choice as to the recipients of their charity. It is to be hoped that foresight and friendly conferences at the city or county level will increasingly enable physicians to discharge their readily accepted responsibility of cooperating in all health measures, and yet on a basis that is scientifically sound and economically just.

25. Medicare

By action of the special House of Delegates session last September, the Texas Medical Association is taking part in the experiment commonly designated as Medicare. The medical profession had little choice other than to try to cooperate as loyal citizens with the law which was already on the statute books. A progress report on Medicare will be heard during the current meeting of the House.

The only comment which your President would like to venture is that it is only as Texas physicians may continue to be a part of the experiment, if we can honorably continue to be, that we may expect to have any right to make suggestions or objections that may result in improving Medicare, particularly in making it more equitable. It is estimated that one-sixth of the recipients of Medicare are within Texas. If we ever decide to withdraw from active participation, our influence as one of the larger groups of doctors in the country will be difficult to be exerted. Your President has great faith in the common sense and sagacity of the members of the House of Delegates to continue to work out this problem wisely.

26. Physicians as Citizens

In closing, your President would again like to emphasize the fact that physicians are citizens first, and as such have a right to be interested in, and to express ourselves on, any matter that affects the environment of the practice of medicine. On this premise, all physicians should promptly and repeatedly protest to their Congressmen and Senators about the continued profligate federal expenditures with apparently no desire or intention by the administration to eliminate nonessentials from the federal budget. One of the greatest dangers to our country is that of "creeping paternalism." In many areas the insidious encroachment of centralized federal bureaucracy continues on the march, and the effort for an ever-increasing federal participation in education, including medical education, is a potent threat to all of us. Resistance to federal power expansion must be based on an end of requests for help from the federal pocketbook and a greater determination to care adequately for local, county, and state needs at the local levels. Physicians wish to be considered on the same basis as other citizens, without the inequity of special draft laws and with the same privileges of protecting their future by sensible retirement plans for the self-employed. Every physician should become an active member of the American Thrift Assembly, which seeks to enlist 10,000,000 self-employed citizens in active support of the Jenkins-Keogh bills now pending before Congress with excellent chance of passing.

Your President thanks you for your cooperation this year, appreciates your patience in receiving these suggestions, and wishes for you a happy as well as a busy time in Dallas during this annual session.

Dr. Deaton: Items 1, 3, 4, 5, and 6 are referred to the Reference Committee on Constitution and By-Laws. Item 2 is referred to the Reference Committee on Scientific Work. The Reference Committee on Reports of Officers and Com-

mittees will receive items 7, 8, 9, 10, 11, 13, 14, 17, 18, 19, 20, 21, 23, and 26. Item 12 is referred to the Reference Committee on Resolutions and Memorials. Items 15, 16, and 25 are referred to the Board of Trustees as a reference committee. Item 22 is referred to the Board of Councilors as a reference committee, and item 24 is referred to the Reference Committee on Medical Service and Public Relations.

The next item of business is the election of the General Practitioner of the Year. The Board of Councilors, Dr. Billups as chairman, has a report to make on that.

Election of General Practitioner

Dr. J. T. Billups, Houston: The Board of Councilors wishes to report that we have two nominations for General Practitioner of the Year. These are Elbert Dean Rice of Tyler and Thomas Ford Bryan of Dublin.

Dr. Thomas Ford Bryan

Dr. Vance Terrell, Stephenville: I am a delegate from the Erath-Hood-Somervell Counties Medical Society, and I wish to nominate the beloved senior member of our society, Dr. Thomas Ford Bryan of Dublin, for this distinguished honor of General Practitioner of the Year. Dr. Bryan has had nearly 60 years of practice in participation in the progress of medicine in Texas, and he typifies nearly everything we doctors and the general public respect and admire.

Thomas Ford Bryan was born on a farm near Whitney on September 11, 1874. At the age of 4, he moved with his parents to a farm and ranch near Iredell in Bosque County where he attended the public schools and assisted with the farm and ranch work during summer vacations. After having spent two years at Baylor University at Waco, he entered the University of Texas Medical Branch at Galveston in 1896 and was graduated with the class of 1900. In the summer of 1898, he volunteered for service in the Spanish-American War and served as an enlisted man in the Medical Corps for nine months, eight of which were served in Puerto Rico.

After having been graduated in 1900, he served an internship at St. Mary's Infirmary in Galveston. It was during this time that the "great storm of 1900" came to Galveston, and for several days Dr. Bryan was marooned in the hospital working day and night caring for casualties. Part of the hospital was carried away by the flood, but because of the courageous efforts of the attendants, only few lives were lost there. Following his internship, he started the practice of medicine at Iredell and remained there until 1907 when he moved to Dublin where he has been in continuous practice for a period of 50 years with the exception of one year of service during World War I as a captain in the Medical Corps.

During the year of 1946, he helped to organize and establish the Dublin Hospital, which is a stock company, and is a well equipped 25 bed institution. He has been a member of the Erath-Hood-Somervell Counties Medical Society for 50 years and has served as secretary and president for a number of years. He also has been a member of the State and American Medical Associations for 50 years as well as the Southern Medical Association for 35 years, and a member of the state and national Academy of General Practice since the second year of its organization.

During the early years of his practice, he attended postgraduate courses in Chicago, New Orleans, and Los Angeles. Throughout the years he has attended practically every State Medical Association meeting as well as many American Medical Association meetings, Southern Medical Association meetings, and clinics in Texas, Oklahoma City, and New Orleans. He estimates that he has delivered about 2,500 babies.

Dr. Bryan has been a member of the Baptist Church for 65 years, a member of the Masonic Lodge for over 50 years, and a Shriner for 30 years. He has been an active, civic-minded citizen who has contributed liberally of time and means to all worthy causes. He is a charter member of the Dublin Development Club, which was organized in 1921. He served as its president in 1941. He was examiner for the draft board during World War II. He is without doubt one of the most loved men in all this section of Texas, having the rare faculty of being able to take a firm stand on any issue coming up in his community without incurring the criticism and ill will of his colleagues. Dr. Bryan is a Rotarian and is a strong believer in the motto "Service Above Self." He has lived his life that way, and he is admired as much by his colleagues as by his patients.

At 82, Dr. Bryan looks not more than 70, is immaculate in his dress, and has a keen mind. He is still active, both professionally and in all civic matters. He and his charming wife, who is active in the Texas Medical Auxiliary, have hosts of friends in the medical profession and Auxiliary all over Texas and the nation. They especially like to go to medical meetings and always seem to have a great time.

Dr. Bryan's unselfish devotion to the practice of medicine and the welfare of people in general ranks him high in the estimation of those who know him and fits him particularly for the designation of "Doctor of the Year."

Dr. G. V. Brindley, Sr., Temple: I want to second the nomination of Dr. Bryan. He possesses much that could be said about him more than has already been said. He possesses many of the characteristics that we would all be better off if we possessed. He is first a citizen and he is a man, a real man. He is a Christian gentleman who has been active in civic and religious affairs of his community. He has done much for the people where he has lived. He has the right conception of medicine. I think we should realize that medicine is a profession we practice that we may serve, and Dr. Bryan has the right conception of medicine. The Texas Medical Association will honor itself in electing him as the General Practitioner of the Year.

Dr. Deaton: The Chair will now recognize Dr. Willingham.

Dr. Elbert Dean Rice

Dr. C. E. Willingham, Tyler: The members of the Smith County Medical Society wish to present the name of a very active physician, age 75 years, as our candidate for General Practitioner of the Year for 1957. We present this synopsis of his life history:

Elbert Dean Rice, the fifth of seven children, was born August 11, 1881, on his father's farm about 4 miles south of Tyler. While living on the farm with his parents he obtained his early schooling at Rice community school 3 miles from his home. After finishing elementary school, he attended high school in Tyler. In the summers he worked on the farm and for two and one-half years after finishing high school, he carried a rural mail route in order to earn money for college. After three years at Westminister College in Tehuacana, from which he was graduated in 1909 with a bachelor of arts degree, he entered the University of Louisville Medical School where he received his M. D. degree in 1913. In addition to an externship in his senior year, he did work of various kinds to help pay his way through medical school.

Shortly after graduating, he married Blanche Chapin of Bloomington, Ill., and began the practice of medicine in Hubbard. After staying in Hubbard for only a short while, he and his family moved to Bloomington, Ill., where he practiced medicine for two years with his father-in-law. He then returned to Tyler to do general practice. In 1918 he enlisted in the U. S. Army Medical Corps, advanced to the rank of captain, and served until 1919. Moving back to Tyler in 1919, he again opened his office to general practice and has remained in Tyler until the present time.

In the past 37 years of his residence in Tyler, he has maintained an active practice and an active interest in the county and state medical organizations. About 1920 Dr. Rice was county health officer for about four years. He has been president of the county medical society twice, in 1921 and 1955. He served on the Selective Service examination board during World War II and participated in the County Venereal Disease Clinic from 1936 to 1938. Dr. Rice's records show that he has delivered some 2,324 babies, many of which during the earlier years were delivered in the home.

In addition to his active medical practice, Dr. Rice has found time to be an active member of Marvin Methodist Church choir for 37 years. He has been a member of St. John's Masonic Lodge for 37 years, and holds both Scottish Rite and York Rite privileges. He is a thirty-second degree Mason and a member of the Shrine.

He is a member of Smith County Medical Society, Texas Medical Association, American Medical Association, and the Texas and American Academies of General Practice.

He is still actively engaged in general practice, seeing patients in the office, home, and hospital and responding to calls both day and night. He looks much younger than his age of 75, and his activity in his work indicates that he has many more years of usefulness as a physician and citizen in his community.

He is the father of Dr. Robert D. Rice, who is now actively engaged in the practice of medicine in Tyler.

It is felt that the honor of being selected as the General Practitioner of the Year by the Texas Medical Association cannot be given to a more deserving physician.

Dr. Van D. Goodall, Clifton: I feel like Drs. Terrell and Brindley have very well gone over the biography of our good friend, Dr. Tom Bryan, but the society from which I am a delegate has strongly suggested that I second the nomination of Dr. Bryan for General Practitioner of the Year. The brochure which has been passed out I feel completely covers the subject of the interesting, realistic, and excellent medical life that Dr. Bryan has led. We submit his name not because of the 82 years that he has been fortunate to live but for the many, many things he has been able to do medically and otherwise during his 82 years. I am happy to second the nomination of Dr. Bryan.

Dr. J. M. Travis, Jacksonville: Dr. Willingham said a lot of nice things about Dr. Rice, but there are a lot of things I know about Dr. Rice that he does not know because I have known him longer. Dr. Rice is a valuable man to medicine. He is strictly a general practitioner. He does not edge in on the specialists and so he gets along mighty well with the doctors. I think he would make an ideal General Practitioner of the Year for Texas Medical Association. It is an honor that he deserves and that he will appreciate. Dr. Rice is not too old and he is not too young, but he is just exactly the right age. I believe in Dr. Rice and if he is elected General Practitioner of the Year I know that he will do his duty. I believe he will go forth over this great state of Texas and preach the gospel of good medicine and scientific medicine and good public relations.

Dr. George Turner, El Paso: I am sure that Dr. Rice is a wonderful doctor and it would do us an honor for him to be chosen as the General Practitioner of the Year, but during the 57 years of Dr. Bryan's practice it has been my great good fortune to know him for at least 50 of those years. I remember when I was a boy seeing Dr. Bryan before the days of the automobiles with his spirited palominos making calls and doing the work of his general practice in the countryside in Bosque County. I consider it a personal honor and privilege to second the nomination of Dr. Bryan for General Practitioner of the Year.

Dr. Deaton: I believe any further speeches will lose either one of these gentlemen some votes. The tellers will now collect the ballots and make their count, and they will announce the results later. [Subsequently the tellers reported Dr. Bryan as having been elected General Practitioner of the year.]

If the House will be in order while the tellers are collecting these ballots, we will hear the report of our Executive Secretary, Mr. C. Lincoln Williston, Austin.

[Mr. Williston called attention to his report in the Handbook and read a supplementary report:]

REPORT OF EXECUTIVE SECRETARY

The past year has been a very productive one for the Texas Medical Association. Many notable accomplishments have been realized and, on the basis of several criteria, the Association is much stronger and more effective today than in several years.

The headquarters staff has been pleased to assist officers of the Texas Medical Association in achieving current objectives. The staff also has intensified its efforts to provide additional services to the doctors of the state, and to make them available to a larger percentage of the membership. It is with pleasure that the Executive Secretary reports high lights of staff activities for the year 1956-1957.

1. Texas State Journal of Medicine

The *Texas State Journal of Medicine* has taken on "a new look" in the past 12 months. A readership survey which was conducted early in 1956 served an extremely worth-while purpose. Twenty major changes in typography, format, and subject matter were made as a result of opinions voiced by doctors in the statewide survey. The *Journal* now is being mailed flat instead of rolled up; an abbreviated summary of each scientific article has been added; articles are being shortened; efforts have been intensified to develop clinicopathologic reports; and a more complete table of contents now is being published.

In addition to improvements affecting the *Journal,* there has been a significant increase in editorial reading matter. Reading matter during 1956 totaled 1,192 pages as compared with 856 during 1955, an increase of 39 per cent. Inasmuch as it has been considered that from 50 to 60 pages of reading matter constitute a normal, average issue of the *Journal,* the 336 additional pages of material obtained and processed in 1956 amounted to production of approximately six extra issues over the preceding year.

The editorial excellence of the *Journal* was recognized when honors were bestowed upon the *Journal* in the 1956 national competition of the Society of Associated Industrial Editors. Evaluation ratings by New York judges contained a total of 32 "excellent" ratings for various features of the *Journal,* 17 "good" checks, with no "poor" checks. Many Texas doctors also have commented favorably on major innovations during the past year.

2. Journal Advertising Revenue

Two years ago before the House of Delegates, the Executive Secretary expressed the advisability of exploring sources of additional revenue for the Texas Medical Association. It was pointed out that an effort would be made to obtain a substantial increase in revenue from advertising in the *Texas State Journal of Medicine.* Comparatively little consideration had been given to that potential in recent years.

A comprehensive study and review subsequently was made, and a four point program was developed and placed into operation, with the approval of the Board of Trustees. The program designed to produce larger advertising revenue has proved fruitful.

An average of 83 pages of advertising was carried in each of the 12 issues of the *Journal* during 1956. This compares with an average of 79 pages per issue in 1955, and 67 pages per issue in 1954. Advertising reached a record high in November, 1956, when 102 pages were published.

Net advertising revenue for 1956 was $65,276, as compared with $43,095 in 1954 and $51,714 in 1955. Thus, net advertising revenue has increased by 27 per cent during the past year, and by 51 per cent since the promotional program was initiated in 1954.

3. Financial Study of Journal Operation

The headquarters staff undertook a comprehensive study of financial aspects of the *Texas State Journal of Medicine* during the past year. Particular consideration was given to the following areas:

a. A review of subscription rates charged for the *Journal* over a period of years. There has been no increase in the subscription rate since 1927, when it was raised from $2.50 to $3 annually. Although Association dues have increased from $9 to $50 for regular membership during that period, the amount allocated for the support of the *Journal* has remained the same. Three dollars of each $50 received from regular members are allocated to the *Journal.*

b. The over-all picture of revenue and expenditures. Total revenue has increased three times since 1926; revenue from advertising has more than quadrupled, while revenue from membership dues has approximately doubled. Total expenditures have not quite tripled since 1926; both printing and distribution costs as well as salaries for *Journal* staff have followed that ratio. Most importantly, the current excess of revenue over expenditures remains adequate.

c. A review of subscription rates charged by other state journals. Subscription rates charged by 35 other state journals range from a minimum of $2 to a maximum of $8. An analysis showed that two rates were dominant. Thirteen states charge $3 annually, whereas nine states set the rate at $5. The present subscription rate for the *Texas State Journal of Medicine* ($3) is modest considering that it is one of the largest and that it ranks extremely high from the standpoint of editorial quality.

After analyzing this information, the Board of Trustees, acting on a recommendation of the Executive Secretary, noted that subscription rates for Association members should not be increased but, instead, should remain at $3—the same amount that has been charged for the past 30 years. As long as revenue exceeds expenditures, it seems inadvisable to raise the subscription rates for members, or to allocate a larger portion of the dues dollar to the *Journal.* However, the Board of Trustees did authorize a modest raise in subscription rates for nonmembers, who in the past have been paying the same rate as Association members. In taking this action, the Board of Trustees expressed the opinion that membership in the Texas Medical Association should entitle the physician to certain privileges and benefits not made available to those who do not belong. In the past, nonmembers actually have been sharing the benefits of a fruitful advertising program. There also was precedent for that action inasmuch as five other state journals presently are charging larger subscription rates to nonmembers.

4. Memorial Library

The Memorial Library of the Texas Medical Association marked an important milestone earlier this year. Volumes number 25,000 and 25,001 were presented to the Library by Mrs. Richard C. Bellamy, President of the Woman's Auxiliary, in a special ceremony in Austin on January 26. The volumes were presented in honor of the late Dr. Sam E. Thompson, who gave encouragement and financial support during his lifetime and left $50,000 in his will for library accessions, and the late Dr. Sam N. Key, Sr., who gained the concept of the necessity for a trained medical librarian and who also carried a major responsibility during the construction of the Association's headquarters and library building.

With these acquisitions, the Texas Medical Association now can boast of having a large medical library. The Library's growth and development in recent years have been dramatic. More than 60 per cent of all present volumes have been catalogued since 1952.

Volumes which are to be found in the stacks cover a period of almost 500 years of printing. The earliest volume was printed in 1528, and the ink has barely dried on some of the most recent acquisitions. The Memorial Library presently receives more than 600 current medical journals from all over the world. There are many complete series of journals such as the *American Journal of Medical Sciences,* from volume 1 in 1928 to date, and the *Practitioner* from volume 1 in 1869 to date.

Members of the Texas Medical Association are utilizing the Library more fully each year. The number of reference requests processed by the Library staff has increased by 101 per cent since 1953. A record high of 2,428 reference requests was handled promptly by the Library staff in 1956. Materials circulated by the Library, such as reprints, journals, and books, amounted to more than 18,000. The motion picture film service has kept pace with this rapid growth. The Library booked 899 films for showing last year for medical societies, the Woman's Auxiliary, civic clubs, and other groups. This is an increase of 215 showings, or 31 per cent, since 1955; and an increase of 329 showings, or 58 per cent, since 1954. It is particularly significant that 38 films were added by the Library to its holdings in 1956. The Library now has a total of 160, including 91 professional films and 69 lay films. From these figures, it is evident that the Memorial Library represents one of the truly great assets of the medical profession in this state.

5. Physicians Placement Service

Representative of efforts by the central office to extend and improve its activities is the Physicians Placement Service. The Physicians Placement Service was completely reorganized in June, 1956, and the changes instituted already are proving to be productive.

A larger percentage of doctors listed with the Physicians Placement Service in 1956 were placed as compared with 1955. Equally important, a larger percentage of community vacancies was filled by the Placement Service in 1956.

Twenty-eight doctors were placed in 1956 through our organization. In addition, 49 other doctors found placement through other sources. At the end of the year, there were 48 doctors currently active who were seeking placement.

Twenty-eight communities and clinics obtained doctors from the Physicians Placement Service last year. At year's end, there were 87 communities, clinics, and other opportunities on file for which no physician had been secured.

The American Medical Association has ranked the Texas Medical Association's Physicians Placement Service as one of the most outstanding maintained by any state society. Yet, there always is room for improvement.

Formerly a separate division in the headquarters organization, the Physicians Placement Service was incorporated last June under the jurisdiction of the Assistant Executive Secretary. Attendant with this incorporation was a thorough

reevaluation of procedures which previously were employed. The results of the reevaluation have been gratifying from the standpoint of increased efficiency and economy.

6. Association Membership

The Texas Medical Association completed the year 1956 with an official membership tally of 7,569.

The 1955 membership was listed at 7,324. Thus, a net increase of 245 was recorded for the year 1956, representing approximately 3.4 per cent. This percentage of increase is smaller than previous years. An average increase of 4.7 has been realized during the past 15 years.

Texas reported 6,907 memberships in the American Medical Association for 1956. Of that number, however, 478 are associate members who are not counted in the allocation of delegates. On the basis of this report, it appears unlikely that Texas will qualify for an eighth delegate in the AMA House of Delegates prior to 1959.

It should be noted that the use of IBM equipment was instituted by the Business Office during the past year for processing membership dues. This action proved very helpful, and resulted in a savings of hours of typing and clerical work each week. In 1954 and 1955, it was necessary for those assigned to membership to work long hours on evenings and week ends in order to process the dues in time for the annual session. No overtime was necessary during the past year. The new IBM procedure also saved a great deal of time for county society secretaries. Secretaries were not confronted with the duplication of effort they have had in the past, which involved typing the lists of their members for dues transmittals and retyping the list of all of their members for their annual report.

Installation of a complete IBM system is being investigated. If found to be economical, it will enable the headquarters staff to perform additional services for members.

7. Printing Activities

As evidence of the increased scope of activities at the headquarters building, the amount of work processed in the printing department during 1956 increased 47 per cent over the preceding year.

More than a million and a half printing impressions were made during the past year. To illustrate how the Association has provided greater printing service, a comparison of printing impressions is offered for 1954, 1955, and 1956.

Year	Printing Impressions	% Increase
1954	713,064	
1955	1,069,596	55
1956	1,582,306	47

As is evident, this volume of work performed in the headquarters building resulted in a large economy for the Association. Despite the volume, the quality of work performed is excellent, particularly considering the limited equipment which is available.

8. Assistance to Woman's Auxiliary

The headquarters staff continues to assist the President and officers of the Woman's Auxiliary in coordinating the activities and expanding programs of that organization. The full-time Executive Secretary to the Woman's Auxiliary renders many valuable services to the 5,400 members and the 115 county units. The projects included coordination of programming and arrangements for the thirty-ninth annual Auxiliary convention in Dallas, assisting the Future Nurses Clubs for their second annual meeting, arrangements for the School of Instruction and the fall and winter Board meetings, maintenance of up-to-date membership files and mailing plates, preparation of the *News Letter,* and processing of communications to the membership.

In recent months, the Executive Secretary also assisted in an ambitious project involving the promotion and sale of a specially designed Christmas card. More than 29,000 cards were printed and shipped from the headquarters building. This project has resulted in a net profit of approximately $1,800 for the American Medical Education Foundation.

9. Services Brochure

The headquarters staff has continued its efforts to inform doctors of the benefit of membership in the Texas Medical Association. This objective has been prompted by the additional services which have been made available and by the increased activities now being undertaken by councils and committees.

An inexpensive, 24-page brochure on "Services" has been distributed in recent months to all members of the Association. The name of each member was personally inscribed on the cover, thus increasing its attractiveness to the individual. The brochures have been distributed in many instances by members of the headquarters staff in their visitations to county societies, and to other members by direct mail.

The brochure represents the third special effort in three years to tell the story of the Association to the membership. The visitation program was initiated two years ago; last year a special exhibit, "Serving the Doctors of Texas," was designed for display at the five major medical meetings in the state and regular meetings of component county medical societies.

10. Biographical Records

The Texas Medical Association presently is developing a more complete, up-to-date record on members than has been available heretofore. A personnel sheet was mailed to each member of the Association in November, and more than 2,500 completed forms have been returned to date, many with a picture of the physician.

11. Assistance to Councils and Committees

One of the most important assignments of the headquarters staff is assisting the Association's 35 councils and committees in executing their programs and activities. Throughout the year, and particularly in recent months, considerable time and effort was devoted to coordinating various aspects of the 1957 annual session in Dallas. As part of its routine, the staff met with the Council on Scientific Work at all of its meetings; it assisted with the inspection and assignment of meeting facilities; it handled the bulk of the correspondence with guest speakers and refresher course faculty; it solicited, sold, and assigned space for technical exhibitors; it assumed full responsibility for a stepped-up program of promotion and publicity; and it edited for publication the Reports of Officers and Committees handbook prior to the meeting.

The staff was pleased to assist the President, the Board of Trustees, the Council on Medical Jurisprudence, and the Committee on Public Relations in arranging programs in connection with the fall and winter meetings of the Executive Council. The sixth annual Conference of County Medical Society Officials and the Symposium on Legislation was staged in January, 1957, and the second annual Conference on Public Relations was held in September, 1956. Both conferences were well attended and, apparently, well received.

The staff assisted the Board of Trustees in implementing the Dependents Medical Care Program in this state, and worked with the Council on Medical Economics in conducting a statewide fee survey which proved helpful in negotiating an agreement with the Department of the Army.

Considerable time and effort was devoted to the Committee on Mental Health, and its national consultant, Dr. Francis J. Gerty, in assisting in the development of an optimum mental health program for the state. The staff also took an active role in assisting councils and committees with their various publications. For example, two fine publications, "Summary of First Texas Conference of Physicians and Schools" and "The ABC's for School Health Committees," were produced for the Committee on School-Physician Relationships. These are just a few illustrations, for most of the councils and committees have been very active during the past year, and it has been the staff's responsibility to assist them in achieving their objectives.

12. Headquarters Staff

a. *Personnel.*—As a result of excellent employment conditions and progressive personnel policies approved by the Board of Trustees for staff at the headquarters, there has been little turnover during the past year.

Mrs. Wacille Johnson, coordinator of the Physicians Placement Service for the past six years, resigned in August, 1956, because of pregnancy. Mrs. Johnson is to be commended for her many contributions in developing this outstanding service. There were no other changes in department or division headships at the central office.

Bill E. Robertson was appointed to the staff in July, 1956, as Coordinator of Advertising and Public Relations, a new position previously authorized by the Board of Trustees. Mr. Robertson, a graduate in journalism of the University of Texas, has been given the following assignments: coordination of all phases of advertising in connection with the *Texas State Journal of Medicine;* execution of public relations programs undertaken by the Association; promotion and publicity functions; participation in the field program; and execution of other projects as directed by the Executive Secretary.

b. *Staff Pension Retirement Program.*—Three individuals have been designated to administer the pension retirement program which was established by the Board of Trustees in April, 1956, for the staff at the headquarters building. They are Dr. R. W. Kimbro, Chairman of the Board of Trustees; C. Lincoln Williston, Executive Secretary; and Miss Harriet Cunningham, Managing Editor of the *Texas State Journal of Medicine.*

c. *Nonsupervisory Salary Structure.*—Considerable study was given last year to several phases of employee relations, including the salary structure for nonsupervisory staff members. As a result of many policies and programs which have been approved by the Board of Trustees, the Association has profited from the services of a loyal, efficient staff.

d. *Modified Work Schedule.*—A new modified work schedule, based upon the principle of the 40-hour week, has been adopted for nonsupervisory staff of the Texas Medical Association. The building will be regularly open from 8:15 a. m. until 5:15 p. m., Monday through Friday, and from 8:15 a. m. until 12 noon on Saturday.

e. *Intrastaff Communication.*—A staff that is well informed can serve an organization more effectively. This principle of good personnel management is being utilized to advantage. Among efforts to promote better intrastaff understanding instituted at the headquarters building in recent months has been the weekly publication of a staff news sheet, the *TMA Capsule.* The *Journal* editorial staff has taken the responsibility for compiling information for the *Capsule,* preparing it for printing, and distribution.

13. Headquarters Building

a. *Policy on Occupancy.*—Occupancy of the headquarters building in Austin will be limited in the future to functions and personnel wholly engaged by the Texas Medical Association. This policy was adopted by the Board of Trustees at its September, 1956, meeting, upon the recommendation of the Executive Secretary.

There are some advantages in sharing the headquarters building with other groups and organizations which serve and work with the doctors of Texas. In adopting this new policy, however, the Board of Trustees and the Executive Secretary were prompted by these considerations: Space and equipment presently are taxed to capacity and are needed by departments of the Association; occupancy of the building by other organizations has represented a costly expenditure to the Association; and a solidarity of purpose can be achieved, and staff morale can be further enhanced, by limiting occupancy of the building to personnel of the Texas Medical Association.

This action does not conflict with previous policy adopted by the Board of Trustees in regard to utilization of meeting room facilities at the headquarters building by other medical and scientific organizations.

b. *Building Maintenance.*—A planned program of progressive maintenance has been initiated in order to keep the headquarters building, which now is four and a half years old, in good condition. The Board of Trustees has allocated $500 for plaster repair and painting for the current year. The Board of Trustees also has appropriated funds for pest control services.

14. Income from Technical Exhibits

A three-year program to produce greater income from technical exhibits at the annual session, and to strengthen relationships with pharmaceutical houses and other commercial firms which serve the medical profession, will culminate with attainment at the Dallas meeting.

All booth space for technical exhibits was sold four months in advance of the 1957 annual session. There will be 100 technical exhibitors at the Dallas meeting, far exceeding the previous high of 73 at the 1956 annual session in Galveston. The program to strengthen exhibitor relations was initiated following the 1954 annual session in San Antonio, when there were 66 technical exhibits.

Booths are priced at $150 each this year, thus providing a gross income of $15,000. Costs for exhibit hall rental and decorator services will be approximately $3,000, leaving a net profit of $12,000 from technical exhibit booths.

Net income from technical exhibits was $6,258 in 1954 (San Antonio); $6,673 in 1955 (Fort Worth); and $12,000 will be realized this year. Thus, net income has almost doubled since a promotional program was initiated three years ago.

15. 1958 Annual Session

The 1958 annual session of the Texas Medical Association previously was awarded to Houston by the House of Delegates. The dates, April 19-23, 1958, also were approved. Convention facilities in Houston have been inspected on several occasions for the purpose of selecting a headquarters hotel.

After evaluating these facilities, the inspection committee recommends that the meeting be staged at the Shamrock-Hilton Hotel. The Shamrock-Hilton is the lone facility

which can adequately handle the meeting in view of housing, meeting rooms, exhibit space, and catering requirements.

The Association has been able to secure, through negotiations, an exceptionally favorable financial arrangement for exhibit space at the Shamrock-Hilton. By formal action, the Executive Council, the Board of Trustees, and the Council on Scientific Work have concurred that the Shamrock-Hilton should be designated as the headquarters hotel for the 1958 annual session. The Woman's Auxiliary will select a downtown hotel for its headquarters.

16. 1959 Annual Session

The 1959 annual session of the Texas Medical Association has been awarded to San Antonio by vote of the Executive Council, upon recommendation of an inspection committee, and with the concurrence of the Board of Trustees and the Council on Scientific Work.

The dates which have been selected are April 18-22, 1959, tying in with the start of Fiesta Week activities. Selection of the headquarters hotel will be deferred until a later date.

The inspection committee visited San Antonio this past summer, and after evaluating all facilities available, concluded that San Antonio could meet the Association's requirements for housing, meeting rooms, exhibit space, and catering. Fiesta Week will offer an outstanding companion feature which should help swell attendance.

17. Liaison with County Societies

The headquarters staff has continued its efforts to improve liaison with the 115 component county medical societies. Officers and staff are vitally interested in the welfare of the component societies and their individual members. The specific objective is to help each county society become the most effective and respected organization in its area. Present efforts are directed into three channels: (1) to improve communication, liaison, and understanding between the individual doctor, the county society, and the state Association; (2) to develop a greater interest in organized medicine and to improve attendance and participation in county societies; and (3) to make available excellent programs on scientific and socio-economic topics.

Officers and staff have been presenting the following topics at meetings of county medical societies during the past year: "The Private Practice of Medicine. Can It Survive?"; "Medical Economics Problems. The Business Side of Medical Practice"; "How to Avoid Malpractice. Legal Aspects of Medical Practice"; "Public Opinion and Public Relations in Medical Practice"; "A Look at Texas Medicine Today"; "Doctor Shortage in Texas—True or False"; "Medical Ethics"; and "Services of the Texas Medical Association."

Representatives of the state Association also are prepared to speak on various topics which are particularly current and timely. For example, county medical societies have voiced the greatest demand in recent months for a review of the salient features of the Dependent Medical Care Program and an analysis of its long range implications. Programs on "Medicare" have been presented at 17 meetings of county societies since February 1.

In addition to socio-economic topics, the staff also was pleased to arrange scientific programs for county societies. The Committee on Tuberculosis, in collaboration with the Texas Chapter, American College of Chest Physicians, has made available a faculty of 50 qualified speakers. In scheduled appearances, they have been discussing recent developments in the proper use of chemotherapeutic drugs as well as the criteria for the surgical treatment of tuberculosis.

The Committee on Cancer presently is offering a choice of selected programs. Outstanding speakers, films, and Kinescope programs may be secured upon request. A new feature will be added to the portfolio of scientific programs this spring. Programs on cardiovascular diseases will be made available under the guidance of the Committee on Cardiovascular Diseases and the Texas Heart Association.

A record high of 90 programs was arranged by the Texas Medical Association for county societies during the past year. The previous high was 87, accomplished in 1954-1955 during the term of Dr. F. J. L. Blasingame, when the visitation program was initiated. This program has proved fruitful, and has resulted in a greater understanding and appreciation of the Association by the membership throughout the state.

The headquarters staff has been pleased to have an opportunity to continue to serve the doctors of this state. The staff is particularly grateful for the expert direction and thoughtful considerations extended during the past year by the Board of Trustees, officers, and councils and committees. Full cooperation is pledged in carrying out the programs, activities, and objectives of the Texas Medical Association during the coming year.

Respectfully submitted,

C. LINCOLN WILLISTON.

SUPPLEMENTARY REPORT OF EXECUTIVE SECRETARY

Honorary and Inactive Members

I am pleased to submit a list of county society nominations for honorary and inactive membership in the Texas Medical Association. Thirty physicians have been nominated for honorary membership and 14 physicians for inactive membership. To conserve your time, we have published these lists, and you may secure a copy at the Credentials Desk. [This list, with subsequent modifications, follows:]

HONORARY MEMBERSHIP

District 1:
El Paso County—
Dr. C. H. Mason, El Paso; born 1885; member 1916-1957; 41 years.

District 2:
Five Counties—
Dr. J. C. Loveless, Lamesa; born 1878; member 1906-1957; 51 years.

District 3:
Hale-Floyd-Briscoe—
Dr. Levi C. Wayland; born 1879; member 1904-1957; 53 years.

District 4:
Kimble-Mason-Menard-McCulloch—
Dr. Perry A. Baze, Mason; born 1878; member 1917-1957; 40 years.
Dr. Aaron R. Hays, Brady; born 1883; member 1917-1957; 40 years.

District 6:
Hidalgo-Starr—
Dr. Frank W. Bennett, McAllen; born 1870; member 1931-1957; 26 years.
Dr. Thomas R. Burnett, Mission; born 1883; member 1906-1957; 51 years.
Dr. Edwin L. McCalip, Weslaco; born 1885; member 1924-1957; 33 years.
Dr. Samuel T. Parker, Pharr; born 1886; member 1910-1957; 47 years.
Dr. William E. Whigham, McAllen; born 1882; member 1907-1957; 50 years.

Webb-Zapata-Jim Hogg—
Dr. Martin L. Fuller, Laredo; born 1877; member 1908-1957; 49 years.

District 8:
Galveston—
Dr. William C. Fisher, Jr., Galveston; born 1888; member 1913-1957; 44 years.
Dr. H. Reid Robinson, Galveston; born 1887; member 1912-1957; 45 years.

District 10:
Jasper-Newton—
Dr. Henry S. Hall, Newton; born 1880; member 1917-1957; 40 years.

District 12:
Falls—
Dr. E. W. Hawkins, Marlin; born 1881; member 1945-1957; 12 years.
Dr. George H. Hampshire, Marlin; born 1879; member 1902-1957; 55 years.
McLennan—
Dr. Horace T. Aynesworth, Waco; born 1880; member 1910-1957; 47 years.
Dr. W. L. Souther, Waco; born 1882; member 1913-1957; 44 years.
Dr. R. Spencer Wood, Waco; born 1880; member 1910-1957; 47 years.
Navarro—
Dr. Samuel H. Burnett, Corsicana; born 1877; member 1905-1957; 52 years.

District 13:
Eastland-Callahan-Stephens-Shackelford-Throckmorton—
Dr. T. G. Jackson, Gorman; born 1883; member 1910-1957; 47 years.
Tarrant—
Dr. Louis O. Godley, Fort Worth; born 1885; member 1913-1957; 44 years.

District 14:
Dallas—
Dr. Ernest J. Brooks, Arlington; born 1886; member 1913-1957; 44 years.
Dr. Guy T. Denton, Sr., Dallas; born 1882; member 1922-1957; 35 years.
Dr. Paul W. Mathews, Dallas; born 1898; member 1922-1957; 35 years.
Dr. Vinny L. Smith, Dallas; born 1885; member 1907-1957; 50 years.
Hunt—
Dr. J. S. Cooper, Greenville; born 1884; member 1919-1957; 38 years.

District 15:
Camp-Morris-Titus—
Dr. D. H. Baber, Daingerfield; born 1896; member 1922-1957; 35 years.
Cass-Marion—
Dr. James I. Allen, Bloomburg; born 1877; member 1917-1957; 40 years.

INACTIVE MEMBERSHIP

District 3:
Potter—
Dr. Bascom M. Puckett, Amarillo; born 1890; member 1919-1957; 40 years.

District 5:
Bexar—
Dr. Ernest P. Cayo, San Antonio; born 1880; member 1921-1957; 36 years.
Dr. Martha Beal Jackson, Austin; born 1888; member 1918-1957; 39 years.
Dr. George W. Rice, San Antonio; born 1892; member 1954-1957; 3 years.

District 6:
Bee-Live Oak-McMullen—
Dr. Claude M. Poff, Tuleta; born 1882; member 1906-1957; 51 years.
Nueces—
Dr. Frank Ellis, Corpus Christi; born 1894; member 1936-1957; 21 years.
Dr. Bette Upshaw, Corpus Christi; born 1918; member 1933-1957; 24 years.
Dr. H. A. White, Corpus Christi; born 1883; member 1922-1931; 1934-1954; 1957; 30 years.

District 7:
Travis—
Dr. C. H. Brownlee, Austin; born 1888; member 1916-1957; 41 years.

District 8:
Brazoria—
Dr. Thomas A. Ritch, Freeport; born 1927; member 1955-1957; 2 years.
Galveston—
Dr. Eugene L. Smith, Hitchcock; born 1921; member 1953-1957; 4 years.

District 9:
Harris—
Dr. Raymond Leslie Bradley, Houston; born 1892; member 1919-1957; 38 years.
Dr. Joel Milton Hill, Fort Worth; born 1900; member 1936-1957; 21 years.

District 10:
Jefferson—
Dr. John A. Knight, Beaumont; age unknown; member 1948-1957; 9 years.
Liberty-Chambers—
Dr. Byron Lee Jordan, Daisetta; born 1876; member 1915; 1931-1939; 1941-1948; 1957; 17 years.

District 13:
Tarrant—
Dr. Frank G. Sheddan, Fort Worth; born 1883; member 1935-1957; 22 years.

District 14:
Dallas—
Dr. Paul M. Wolff, Dallas; born 1876; member 1937-1957; 20 years.

1. Medicare

Texas, with its large military installations, is a key state in this new medical program for the dependents of servicemen. Approximately 2,000,000 individuals are eligible for benefits, and an estimated one-sixth of them are residing in this state.

In less than four months in which Medicare has been in operation, doctors of Texas have rendered more than 6,700 claims. Our designated fiscal agent, Blue Shield, now has paid out $388,000, with each claim averaging $74.92. Blue Shield continues to receive claims at the rate of 181 per day. It now appears likely that Texas doctors will render more than three quarters of a million dollars worth of professional services during the first six months of the program in this state. The total estimated cost of the contract between the Texas Medical Association and the Department of the Army recently was increased to $790,000 through June 30 of this year.

There is one other important administrative development on Medicare. As you know, the present agreement signed by the Texas Medical Association and the Department of the Army will expire on June 30 of this year. The Army recently indicated that it wishes to extend the present contracts with Texas and other state medical societies until 1958. The present agreement would be extended by correspondence

through January of next year at which time the contract would be renegotiated.

The Department of the Army prefers to postpone renegotiations until 1958, rather than to stage them this June, for the following reasons: (1) It will provide a longer period to gain administrative experience. (2) It will allow time for completion of audits covering the initial period of the contract.

The Department of the Army plans no significant changes in the extension agreement. Nevertheless, each state is asked to determine whether the provisions of the existing contract are agreeable, or whether changes should be sought at this time.

I submit these recent developments as an administrative report and, obviously, without any recommendation whatsoever.

2. Services

[Mr. Williston then summarized some of the information in sections 1, 4, 5, and 7 of the original printed report. He also reported:]

In action taken here last night, the Board of Trustees approved a recommendation that the annual *Journal* subscription rate be increased to $6 for nonmembers. Nonmembers have been paying $3 a year—the same rate that is charged Association members. This increase was based upon the philosophy that membership in the Texas Medical Association should entitle the physician to certain privileges and benefits not made available to others. In the past, nonmembers have been sharing the benefits of a fruitful advertising program.

3. Membership

You will be interested in knowing, I feel certain, that the Texas Medical Association completed the year 1956 with a membership of 7,592. This is a net increase of 268, or 3.7 per cent, over a year ago. It is encouraging to note that 7,250 memberships already have been processed for 1957, and we are anticipating a roster of approximately 7,850 by the end of the year. Approximately 91 per cent of our members belong to the American Medical Association. Texas reported 6,610 physicians as active members of the AMA last year. If we can pick up 391 new members this year through normal growth and an informational program, Texas will qualify for an eighth delegate in 1958 sessions of the AMA House of Delegates.

4. Revenue

[Then followed a summary of information in sections 2, 3, and 14 of the original report.]

Respectfully submitted,
C. LINCOLN WILLISTON.

Dr. Deaton: From the report of the Executive Secretary sections 2, 3, and 14 are referred to the Reference Committee on Finance; 15 and 16 are referred to the Reference Committee on Scientific Work; and 17 is referred to the Board of Councilors as a reference committee. The remainder of the report is referred to the Reference Committee on Reports of Officers and Committees. In the supplementary report, items 1 and 4 are referred to the Board of Trustees as a reference committee and the remainder of the supplementary report is referred to the Reference Committee on Reports of Officers and Committees, except that the names of the honorary and inactive members I will refer to the Board of Councilors as a reference committee.

The next item of business is the Report of the Treasurer, Dr. Herbert Thomason.

Dr. T. H. Thomason: The report of the Treasurer is set forth in your manual and it needs no elaboration by me. The matters therein reported will be considered in further detail in the report by the Board of Trustees:

REPORT OF TREASURER

The Auditor's Reports which will be submitted to the Board of Trustees contain complete information on the financial positions of the Texas Medical Association and the Texas Memorial Medical Library Association as of December 31, 1956, and the operations of these organizations for the year ended December 31, 1956.

The following is a condensed Statement of Cash Receipts and Disbursements for the Calendar Year 1956:

	Texas Medical Association	Texas Memorial Medical Library Association
Cash Balances, January 1, 1956	$201,045.23	$ 514.72
Cash Receipts	456,333.67	2,367.89
	$657,378.90	$2,882.61
Cash Disbursements	352,767.67	877.86
Cash Balances, December 31, 1956	$304,611.23	$2,004.75

Cash on hand and on deposit as of December 31, 1956, is accounted for as follows:

	Texas Medical Association	Texas Memorial Medical Library Association
Austin National Bank—Regular Account	$117,185.10	$2,004.75
Austin National Bank—Payroll Account	528.13	—0—
American National Bank—Regular Account	45,520.59	—0—
American National Bank—Building Fund Account	89,214.96	—0—
American National Bank—Medical Defense Fund Account	50,823.95	—0—
Cash on Hand for Deposit	813.50	—0—
Petty Cash and Travel Funds	525.00	—0—
TOTAL	$304,611.23	$2,004.75

Respectfully submitted,
T. H. THOMASON, Treasurer.

The information contained in the above report is correct.
SCHIEFFER AND LYDA,
Certified Public Accountants.
By HUNTER SCHIEFFER.

Dr. Deaton: The Treasurer's report is referred to the Reference Committee on Finance. The next item is the report of the Board of Trustees, Dr. Kimbro.

Dr. R. W. Kimbro, Cleburne: Our report is in the Handbook and the Board of Trustees has a supplementary report:

REPORT OF BOARD OF TRUSTEES

The past year was an extremely busy one for the Board of Trustees. In discharging its assigned duties and responsibilities, the Board staged five meetings and held telephone conferences on three other occasions.

Dr. Byron P. York was welcomed to the Board, following his appointment by the President, Dr. Milford O. Rouse, on May 14, 1956. Dr. York replaced Dr. Denton Kerr, Houston, who resigned upon his assumption of the presidency-elect last April.

1. Financial Affairs

The Board of Trustees fully recognizes its heavy responsibilities in managing the financial affairs of a progressive and rapidly growing organization. The Board acknowledges that it is administering funds which belong to each member of the Texas Medical Association. Therefore, the Trustees have taken the position that all doctors are entitled to know how membership dues and other Association revenues are spent. The Trustees' books are open, and they welcome inquiries from individual members and from county societies at all times.

The operating revenue of the Association is acquired primarily from three sources; from membership dues, from the sale of advertising in the *Texas State Journal of Medicine;* and from the leasing of booths at the annual session. The largest source of revenue, of course, is membership dues. More than $300,000 will be received from that source in the present calendar year.

The Trustees have been anxious to increase revenue from other sources. For obviously, larger income will enable the Association to provide new services and to improve those which currently exist. Councils and committees have become much more active in the past three years, and many worth-while programs and projects deserve financial support. The Trustees are pleased to report that income from *Journal* advertising and from technical exhibits at the annual meeting has increased substantially since 1954.

A two year promotional program designed to stimulate additional *Journal* advertising has produced results. Net advertising revenue for 1956 was $65,000, representing an increase of 27 per cent over a year before, and an increase of 51 per cent over 1954. In addition, the Association has doubled its income from technical exhibits during the past three years. A net profit of more than $12,000 will be realized from technical exhibits at the 1957 annual session in Dallas.

In reporting the business affairs of the Association, the Board of Trustees would like for the House of Delegates to know what happens to the $50 which each individual pays in membership dues annually. Of the $50 dues, $30 is allocated to the General Operating Fund. Fifteen dollars automatically is placed in the Building Fund; $3 is allocated to the *Journal* Fund; $1 to the Medical Defense Fund; and the remaining $1 goes to the Woman's Auxiliary.

Operating funds are employed to provide services to the Association's 7,500 members; to underwrite the programs of councils and committees; to pay the salaries of the staff; and to maintain the fine headquarters building in Austin. In allocating these operating funds, the primary objective of the Board of Trustees is to make it possible for doctors to keep abreast of current developments in medicine and to help them render better medical care to their patients.

To be specific, one of the Association's largest expenditures is for the Memorial Library, which provides package service to doctors in all sections of the state. During the past year, the Library handled 2,400 reference requests for doctors and booked 900 showings for films. The Trustees presently are allocating approximately $31,000 from operating funds for these services to members.

Another major expense is the annual session. In recent years, the Association has sought to develop the annual session into the most outstanding scientific meeting in the Southwest. This year's program will present 24 prominent, out-of-state guest speakers. Features will include 24 refresher courses, three general meetings, nine sectional meetings, 100 technical exhibits, 45 scientific exhibits, a film program, fraternity and alumni parties, and many other social and sports events. In addition, 17 related specialty societies and six other groups will hold meetings. This year's program will cost the Association more than $25,000. Members of the House of Delegates are aware that there is no registration fee for the annual session. The membership card will entitle the physician to all of the privileges of the meeting. In regard to expenditures for the annual session, the Trustees have allocated an additional $500 this year to the Woman's Auxiliary for the sponsorship of a Health Fair. The Health Fair will depict medical progress and will be designed for viewing by the lay public. It will be staged at the Dallas Health Museum during the annual session. The Trustees also have appropriated funds not to exceed $400 for a luncheon for prominent businessmen of the state.

Other major expenditures which are made from the General Operating Fund include $22,000 for office expense, postage, and telephone; $12,500 for taxes; and $10,500 for the operation and maintenance of the building.

Approximately 2 per cent of the General Operating Fund will be spent for public education on legislative issues during the coming year. It is unfortunate that not all of the Association's expenditures in this field are rewarded with attainment. The Association sent 10 doctors to Washington last spring to meet with Texas Congressmen on legislation providing cash disability benefits under the social security program. Despite our efforts, and those of other physicians throughout the country, the medical profession suffered a disheartening setback with the enactment of that bill by Congress.

For the first time this year, the Association is defraying a modest portion of the expenses incurred by the President in his official duties. Texas' seven delegates to the American Medical Association also receive travel expenses to the national meetings. However, all other officers and board, council, and committee members defray their own expenses.

The House of Delegates will be interested, the Board feels certain, in a current report on financing of the headquarters building in Austin. Fifteen dollars of each individual's $50 membership is allocated to the Building Fund. The headquarters building was completed in 1952 at the cost of $732,000. To pay for that construction, it was necessary to secure a note in the amount of $415,000 from the Equitable Life Assurance Society, at an interest rate of 4 per cent annually. In addition, the Board of Trustees borrowed $180,000 from the Association's General Fund and $61,000 from the Medical Defense Fund. The remainder was paid with funds on hand for the building.

The Trustees presently are making monthly payments in the amount of $2,500, of which one-third is interest. In addition to these payments, the Trustees paid off $130,000 on the mortgage two years ago and $50,000 in January, 1957. The mortgage now has been reduced to $150,000. The Trustees also have paid back almost half of the money borrowed from the Medical Defense Fund, and $130,000 of the $180,000 from the General Operating Fund. At this present rate of payment, it appears probable that the mortgage will be cleared and Association funds will be repaid well ahead of the final due date.

Three dollars of each individual's dues are set aside for a subscription to the *Texas State Journal of Medicine.* The Association will spend approximately $85,000 in 1957 to publish the *Journal.* This is the largest single item in the budget. It should be noted that a productive advertising program has made it unnecessary to allocate a larger amount of the dues to the *Journal.* Despite the spiral of increasing costs over the years, the *Journal* subscription rate is the same today as it was in 1927.

The Medical Defense Fund is maintained for the protection of the Texas Medical Association and its members. One dollar of each membership dues goes into the special fund which is entrusted to the Board of Trustees for investment. This fund is being used to good advantage. One of the medical profession's foremost problems at present is

professional liability and malpractice. During the past year, these funds were utilized for two statewide surveys which contained important questions such as the percentage of doctors carrying malpractice insurance, the limits of insurance carried, and reported threats or actual malpractice suits. Results of these surveys should prove invaluable in combating malpractice and in effecting stabilization of insurance rates. In addition, the Board of Trustees recently appropriated funds for the publication of a revision of the booklet, "Facts to Protect You and Your Patient." This booklet, which has been distributed recently to each member, gives 24 helpful hints in protecting the doctor against malpractice.

Another dollar of the $50 dues is allocated to the Woman's Auxiliary. This year, the Auxiliary will receive approximately $7,000 from the Texas Medical Association, representing $1 from each regular member. The Board of Trustees also provides a full time executive secretary for the women and picks up the check for the expenses of that office. The Auxiliary uses its allocated funds for the publication of its *News Letter,* for public relations programs, for mental health, for nurse recruitment, and for many other worth-while projects. The Trustees believe that the funds which ate allocated to the Woman's Auxiliary represent an extremely profitable expenditure.

In summarizing this report on dues, the financial affairs of the Association are in very good order. The excess of revenue over expenditures in the operating funds is modest, but it does provide an adequate margin for making adjustments which will be necessary throughout the year and for underwriting Association projects as the occasion demands.

2. Special Appropriations

Expenses of the President.—Complying with action of the House of Delegates, the Board of Trustees has made provision to budget funds to the President for expenses during his term in office. The current President has agreed to keep an account of the expenses he incurs during his term of office, and the Board of Trustees will compensate him for his travel, telephone calls, and other out-of-pocket expenditures. The President has estimated these expenses at $1,500 for the year.

Salary Increases for Staff.—The Board of Trustees awarded approximately $6,000 in salary increases during the past year to the staff at the headquarters building in Austin. The doctors of Texas are extremely fortunate to have a capable staff which is working diligently in behalf of the medical profession, and the Trustees feel that they have merited these pay increases. All members of the staff have shared in these merit increases.

Texas Commission on Patient Care.—The Board of Trustees conferred with representatives of the Texas Commission on Patient Care in September and was favorably impressed with a report of activities and programs. The Board believes that funds allocated to the Commission to initiate its program in 1956 were utilized wisely. Association funds were used to pay the salary of an executive secretary and a secretary for the Commission. Office space also was provided temporarily at the headquarters building in Austin during the past year.

In making these commitments a year ago, the Board of Trustees reported to the House of Delegates that the Commission should be expected to assume full responsibility for all aspects of the program starting January 1, 1957. However, after hearing a report from the Commission, the Board voted to allocate an additional $2,000 to the Commission in 1957. The Board has stipulated that this allocation should be used for public education and fund raising purposes which should be designed to make the Commission self-sustaining. Budgetary considerations precluded the Trustees from awarding a much larger amount requested by the Commission. The Board has recognized a strong sense of responsibility to more than 35 committees of the Association and has felt it imperative to retain adequate reserves in order to be able to grant future requests for many other worthy projects.

The Board of Trustees also suggested that the Commission consider granting representation to the Woman's Auxiliary to the Texas Medical Association and to the Private Clinics and Hospitals Association of Texas. The Board believes that the Auxiliary has done as much as any organization in the state to promote nursing, and it deserves consideration on that basis. The Commission subsequently granted that request.

Anson Jones Award.—The Board of Trustees granted a request from the Committee on Public Relations and has provided funds for the Anson Jones Award. The Board has designated $250 as a monetary gift for the award, which is designed to honor excellence in the field of medical journalism. A plaque and a fountain pen also will be presented annually to the recipient, and framed certificates will be awarded to those receiving honorable mention.

Civil Defense Field Trial.—The Committee on National Emergency Medical Service was granted a request in the amount not to exceed $1,750 in support of a special activity. The committee is representing the Texas Medical Association in a civil defense field trial in March which involves a simulated bombing of Houston. The appropriation was made for the purchase of a trailer van to transport a 200-bed emergency civil defense hospital, and for other general expenses incurred in the field trial.

3. Contract on Medicare

In September, 1956, the House of Delegates voted to participate in the Dependent Medical Care Program, and directed the Board of Trustees to negotiate a contract with the Department of Defense.

After more than a month of discussion, a trip to Washington, and several conference telephone calls, an agreement was signed. Almost all state societies reached agreements immediately, but representatives of the Texas Medical Association asked for additional consideration on several important issues. These included an adequate schedule of allowances for professional services. In negotiating this phase of the contract, the statewide fee survey proved quite helpful. In addition, officers of 32 specialty societies, including general practitioners, contributed their thinking to the schedule.

Detailed information on Medicare has been provided each member of the Texas Medical Association, by direct mail, through distribution of the publication, "Medicare Manual and Schedule of Allowances for Physicians Fees," and through the *Texas State Journal of Medicine.*

Blue Shield of Texas is serving as the fiscal administrator for the Texas Medical Association, at the request of the House of Delegates. Blue Shield is processing all claims for professional services, and is being reimbursed, without profit, by the Department of Defense. Texas representatives also vigorously supported Texas hospitals in their request for a free choice in designating Blue Cross as their fiscal agent. Despite the joint efforts, however, the request was denied, and the assignment subsequently was given to Mutual of Omaha.

The Board of Trustees has appointed a Committee on Medicare to review and consider cases involving complaints, differences of professional opinion, and misunderstandings, and to advise and assist the United States Government on matters within the scope of the program. Appointees to the Committee are Dr. Andrew B. Small, chairman; Dr.

Glenn D. Carlson, Dr. J. Morris Horn, Dr. Mayo Tenery, Dr. F. J. Sebastian, and Dr. George R. Branch. Meetings will be called as the case load demands, and as suggested by the medical director of Blue Shield.

Texas, with its large military installations, is a key state in the Medicare program. It has been estimated that, perhaps, as many as 20 per cent of the 2,000,000 dependents of military personnel who are eligible for Medicare benefits, are residing in this state. Blue Shield has reported that an average of 183 claims are being filed daily by Texas doctors for professional services rendered under the provisions of the program. The average cost per claim is $75.

The agreement signed by the Texas Medical Association and the Department of the Army will expire on June 30 of this year and is subject to being renegotiated prior to that time. The House of Delegates will have an opportunity at the annual session to review the program, to determine if the contract should be extended, and to decide what changes, if any, should be made in the agreement.

4. Group Disability Insurance Program

The Board of Trustees is pleased to report that the request of the House of Delegates to make the Association's group disability insurance program more flexible has been achieved.

At the time when the Association's program was installed on November 1, 1955, it provided 10-year sickness benefits. Twenty-nine hundred doctors procured coverage during the charter enrollment period. Although encouraged by the initial response, the Board of Trustees was hopeful that an even larger number of members would take advantage of that service. Apparently many physicians declined to participate because of the high premium rate charged for 10-year sickness benefits.

A year ago, the House of Delegates, acting upon a recommendation of the Board of Trustees, requested the Council on Medical Economics, the Charles O. Finley Company, and the Lumbermens Mutual Casualty Company to review critically the original program. They were directed specifically to give consideration to a policy with a less expensive premium which might encourage a larger number of physicians to participate.

The Board of Trustees met on three occasions during the past year with the Council on Medical Economics, the Charles O. Finley Company, and the Lumbermens Casualty Company. The request subsequently was granted, and as of November 1, 1956, a second plan featuring three-year sickness benefits was introduced, at a much lower premium.

Members of the Texas Medical Association now have two policies from which to choose: (1) long-term coverage (10-year sickness benefits) and (2) short-term coverage (three-year sickness benefits). Both plans provide Texas doctors with three additional options. They may choose immediate benefits, a 30-day waiting period, or a six-month waiting period. Lifetime accident benefits are featured in both policies. The present program is extremely flexible. With the choice of three or 10-year sickness benefits, members of the Association now can select a policy to fit their individual needs, and at a premium which they can afford to pay.

5. Public Relations

Committee on Public Relations.—The Board of Trustees has appointed Dr. Joe R. Donaldson of Pampa to serve as chairman of the Committee on Public Relations. Dr. Donaldson replaces Dr. William M. Crawford, Fort Worth. In his letter of resignation, Dr. Crawford indicated that he did not have time to continue to give to this important committee. The Board of Trustees wishes to commend Dr. Crawford for his many valuable contributions during the past three years. The Trustees believe that the Association's public relations programs will continue to prosper under the direction of Dr. Donaldson.

Execution of PR Activities.—Public Relations activities, similar to other important administrative functions of the Texas Medical Association, will be a basic responsibility of the central office staff. Policy and direction will continue to be provided by the Committee on Public Relations, the Board of Trustees, and officers of the Association.

In the past, public relations counsel has been employed on a retaining basis. A coordinator of advertising and public relations was employed starting in July, 1956, as a member of the central office staff. Bill E. Robertson, a graduate of the University of Texas, will handle the expanding advertising programs of the *Texas State Journal of Medicine* and will assist in executing the Association's public relations programs. In effecting this change, the Board of Trustees acknowledges that the continuing increasing scope and magnitude of public relations activities may be too great, at times, for any one individual to execute. When the occasion demands, the Texas Medical Association will contract with public relations counseling firms, organizations, or other individuals in order to carry out the assignment.

This action by the Board of Trustees conforms with the principles of good business management and will result in substantial economies for the Association. It follows the pattern adopted by large, PR-minded associations and business firms; namely, basic responsibility for public relations activities should be charted as an integral part of that organization, with counseling firms and individuals being called upon when the occasion demands for specific assignments and supplemental activities.

6. Liaison with Medical Education

The Board of Trustees has been endeavoring to foster greater understanding and cooperation between medical practice and medical education in the state. The Board of Trustees was pleased to accept an invitation extended by Dr. John B. Truslow to visit the University of Texas Medical Branch in July. At that time, the Board received first-hand reports of the Medical Branch's administrative problems. The Board of Trustees returned the invitation in September, serving as host to the deans of the three medical schools, to President Logan Wilson of the University of Texas, and to Dr. Melvin A. Casberg, Vice-President of Medical Affairs. The Trustees feel that these informal conferences have been exceptionally worth while.

Summary

The Board of Trustees believes that fiscal and administrative affairs of the Texas Medical Association are in extremely good order. The House of Delegates and all members of the Association should be fully informed as to how each dollar is spent. The Trustees also would like for delegates to know the basis or the thinking which has contributed to decisions or policies. If delegates or members of their societies should have questions regarding an expenditure of money or a policy which has been formulated, the Board will be grateful if they will bring them to its attention.

Respectfully submitted,

R. W. Kimbro, Chairman,
G. V. Brindley, Vice-Chairman,
J. B. Copeland, Secretary,
Troy A. Shafer,
Byron P. York.

ADDENDUM TO REPORT OF BOARD OF TRUSTEES

Report of Auditor to Texas Medical Association

Austin, Texas, March 9, 1957.

The Board of Trustees,
Texas Medical Association,
Austin, Texas.

Gentlemen:

In accordance with the terms of our engagement, we have made an examination of the Statement of Financial Position of the Texas Medical Association as of December 31, 1956, the Statement of Cash Receipts and Disbursements for the year ended December 31, 1956, and the Statement of Revenues and Expenditures for the year ended December 31, 1956. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our accompanying report we submit the following statements and schedules:

Statement of Financial Position, December 31, 1956.

Statement of Cash Receipts and Disbursements for the Year Ended December 31, 1956.

Statement of Revenues and Expenditures for the Year Ended December 31, 1956.

Departmental Breakdown of General Fund Expenditures for the Year Ended December 31, 1956.

Comparative Statement of Budgeted and Actual Revenues and Expenditures for the Year Ended December 31, 1956.

In our opinion, the accompanying Statement of Financial Position, Statement of Cash Receipts and Disbursements, and Statement of Revenues and Expenditures fairly present the financial position of the Texas Medical Association as of December 31, 1956, and the results of operations for the year then ended, in conformity with generally accepted

Statement of Financial Position

December 31, 1956

Assets	Total	General Fund	Journal Fund	Building Fund	Medical Defense Fund	Fixed Assets and Fixed Liabilities
Cash on Hand and on Deposit	$ 304,611.23	$163,758.82	$ –0–	$89,957.46	$50,894.95	$ –0–
Accounts Receivable:						
Advertising	12,217.26	–0–	12,217.26	–0–	–0–	–0–
Employees	190.47	190.47	–0–	–0–	–0–	–0–
Reimbursable Expenditures	7,057.76	7,057.76	–0–	–0–	–0–	–0–
Due from General Fund	48,790.45	–0–	48,473.45	–0–	317.00	–0–
Due from Building Fund	131,898.84	96,224.07	–0–	–0–	35,674.77	–0–
Prepaid Insurance	3,169,13	3,169.13	–0–	–0–	–0–	–0–
Prepaid Postage	2,127.56	2,127.56	–0–	–0–	–0–	–0–
Prepaid Annual Session Expense—1957	331.20	331.20	–0–	–0–	–0–	–0–
Land	42,817.10	–0–	–0–	–0–	–0–	42,817.10
Buildings	670,430.67	–0–	–0–	–0–	–0–	670,430.67
Other Improvements	18,542.30	–0–	–0–	–0–	–0–	18,542.30
Furniture and Equipment	119,692.14	–0–	–0–	–0–	–0–	119,692.14
Reference Library (Estimated Value)	155,333.56	–0–	–0–	–0–	–0–	155,333.56
Deposits—Utility and Copyright	331.29	299.29	32.00	–0–	–0–	–0–
Total Assets	$1,517,540.96	$276,158.30	$60,722.71	$89,957.46	$86,886.72	$1,006,815.77

Liabilities	Total	General Fund	Journal Fund	Building Fund	Medical Defense Fund	Fixed Assets and Fixed Liabilities
Accounts Payable:						
Association Expense	$ 26,188.09	$ 21,516.14	$ 4,671.95	$ –0–	$ –0–	$ –0–
Woman's Auxiliary	350.50	350.50	–0–	–0–	–0–	–0–
Consultant for Mentally Ill	3,250.00	3,250.00	–0–	–0–	–0–	–0–
Due to General Fund	96,224.07	–0–	–0–	96,224.07	–0–	–0–
Due to Journal Fund	48,473.45	48,473.45	–0–	–0–	–0–	–0–
Due to Medical Defense Fund	35,991.77	317.00	–0–	35,674.77	–0–	–0–
Accrued Expenses	552.87	552.87	–0–	–0–	–0–	–0–
Deferred Revenues:						
Exhibit Space—Annual Session	5,439.50	5,439.50	–0–	–0–	–0–	–0–
Advertising Revenue	1,967.55	–0–	1,967.55	–0–	–0–	–0–
Subscription Revenue	275.89	–0–	275.89	–0–	–0–	–0–
Membership Dues	14,319.00	8,730.00	918.00	4,365.00	306.00	–0–
Mortgage Payable—Equitable Life Assurance Society	200,396.75	–0–	–0–	–0–	–0–	200,396.75
Total Liabilities	$ 433,429.44	$ 88,629.46	$ 7,833.39	$136,263.84	$ 306.00	$ 200,396.75
Fund Balances						
Balance, January 1, 1956	$ 965,714.29	$190,041.72	$41,148.38	$(117,536.80)	$79,508.22	$ 772,552.77
Add:						
Excess of Revenues over Expenditures	84,530.98	(5,512.88)	11,740.94	71,230.42	7,072.50	–0–
Net Additions to Fixed Assets:						
Furniture and Equipment	3,308.65	–0–	–0–	–0–	–0–	3,308.65
Reference Library	8,867.48	–0–	–0–	–0–	–0–	8,867.48
Mortgage Principal Paid	21,690.12	–0–	–0–	–0–	–0–	21,690.12
Balance, December 31, 1956	$1,084,111.52	$184,528.84	$52,889.32	$(46,306.38)	$86,580.72	$ 806,419.02
Total Liabilities and Fund Balances	$1,517,540.96	$273,158.30	$60,722.71	$89,957.46	$86,886.72	$1,006,815.77

Parentheses denote red figures.

accounting principles applied on a basis consistent with that of the preceding year.

Respectfully submitted,

SCHIEFFER AND LYDA,
Certified Public Accountants.
By HUNTER SCHIEFFER.

[EDITOR'S NOTE: Only the Statement of Financial Position and the Statement of Revenues and Expenditures are published herewith, but all financial reports are available for perusal by any member of the Association.]

STATEMENT OF REVENUES AND EXPENDITURES
TEXAS STATE JOURNAL OF MEDICINE
For the Year Ended December 31, 1956

REVENUES	JOURNAL FUND
Membership Dues	$21,217.50
Journal Advertising	70,907.98
Subscriptions	872.56
Total Revenues	$92,998.04
EXPENDITURES	
Printing Journals	$48,230.99
Engraving	1,615.66
Mailing Journals	1,800.00
Advertising Commissions and Discounts	5,765.92
Register of Copyright	52.00
Uncollectible Accounts	79.80
Salaries	20,323.40
Retirement	389.22
Payroll Taxes	453.09
Travel	218.90
Disability Insurance	695.03
Christmas Gift	50.00
Miscellaneous Personnel Expense	28.90
Office Supplies	167.98
Telephone and Telegraph	231.54
Postage	516.82
Parcel Post, Express, and Freight	13.68
Publications	17.50
Miscellaneous Office Expense	77.45
Typography and Lithography	42.20
Photography	17.49
Stencils and Machine Supplies	31.82
Maintenance and Repairs—Equipment	15.00
Air Conditioning Contract	48.00
Utilities	235.37
Miscellaneous General Expense	139.34
Total Expenditures	$81,257.10
EXCESS OF REVENUES OVER EXPENDITURES	$11,740.94

Report of Auditor to Texas Memorial Medical Library Association

Austin, Texas, March 12, 1957.

Dr. R. W. Kimbro, President,
Texas Memorial Medical Library Association,
Cleburne, Texas.

Dear Sir:

We have examined the Statement of Financial Position of the Texas Memorial Medical Library Association as of December 31, 1956, and the Statement of Cash Receipts and Disbursements for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying Statement of Financial Position and Statement of Cash Receipts and Disbursements present fairly the financial position of the Texas Memorial Medical Library Association at December 31, 1956, and its cash receipts and disbursements for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Sincerely,

SCHIEFER AND LYDA,
Certified Public Accountants.
By HUNTER SCHIEFFER.

STATEMENT OF FINANCIAL POSITION
As of December 31, 1956

ASSETS

Cash on Deposit—Austin National Bank		$ 2,004.75
Investments:		
Equitable Building and Loan Association Shares	$1,000.00	
Mutual Building and Loan Association Shares	1,000.00	
Tarrant County Building and Loan Association Shares	1,000.00	
Investors Mutual, Inc., Shares	8,000.00	
American Telephone and Telegraph Shares	5,464.11	
American Telephone and Telegraph Debentures	411.37	
U. S. Savings Bonds—Series "F"	1,480.00	
U. S. Savings Bonds—Series "G"	5,000.00	
U. S. Savings Bonds—Series "J"	576.00	23,931.48
TOTAL ASSETS		$25,936.23

FUND BALANCES

Dr. and Mrs. N. D. Buie		$ 1,000.00
Dr. Martin Junius Taylor		1,000.00
Dr. and Mrs. William Thomas Carter Memorial		1,000.00
Woman's Auxiliary to the Texas Medical Association:		
G. A. Ray Memorial	$1,000.00	
Romayne Ray Memorial	1,000.00	
Mrs. S. H. Watson Memorial	100.00	
Presidents' Library Endowment	1,000.00	
Woman's Auxiliary Library Endowment	4,581.00	7,681.00
County Medical Society Library Endowment		1,688.00
Mary Carter Owen and Mattie Hanes Brindley Memorial		1,000.00
Dr. and Mrs. V. R. Hurst		1,000.00
Dr. J. C. Terrell		1,000.00
Dr. Karl John Karnaky		209.00
Dr. W. B. Weary		13.10
Texas Pediatric Society Library Endowment		1,000.00
Dr. and Mrs. Sam E. Thompson Memorial		1,030.00
Warner E. Williams Memorial		1,000.00
Hattie Hunt Memorial		1,000.00
Inez Anthony Hudgins Endowment		740.00
Dr. Sterling E. Russ Memorial		740.00
Percy R. Fayle		10.00
Dr. William Everitt Payne		5.00
J. M. Coleman Endowment		250.00
Dr. Frederick C. Coleman Memorial		10.00
Dr. J. Arch Stephens Memorial		5.00
Dr. Sam E. Thompson Memorial for Rare Books		250.00
Sam N. Key, Sr. Memorial		1,060.00
Anonymous Donor		125.00
Undistributed Income:		
Restricted to Pediatric Service	$ 167.69	
Unrestricted	2,952.44	3,120.13
TOTAL FUND BALANCES		$25,936.23

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
For the Year Ended December 31, 1956

CASH ON DEPOSIT—January 1, 1956		$ 514.72
RECEIPTS		
Income from Investments:		
American Telephone and Telegraph, Dividends	$ 279.00	
American Telephone and Telegraph, Interest	17.83	

Investors Mutual, Inc., Dividends	456.06	
Equitable Building and Loan, Dividends	30.00	
Mutual Building and Loan, Dividends	15.00	
Tarrant County Building and Loan, Dividends	15.00	
U. S. Savings Bonds—Series "G," Interest	50.00	
Donations:		
Dr. Frederick C. Coleman Memorial Fund	10.00	
J. M. Coleman Endowment Fund	150.00	
Dr. J. Arch Stephens Memorial Fund	5.00	
Dr. and Mrs. Sam E. Thompson Memorial Fund	30.00	
Dr. Sam E. Thompson Memorial Fund for Rare Books	250.00	
Sam N. Key, Sr. Memorial Fund	1,060.00	
Total Cash Receipts		2,367.89
Total Cash Available		$2,882.61
DISBURSEMENTS		
Purchase of American Telephone and Telegraph Shares	$ 592.86	
Purchase of Rare Books	285.00	
Total Cash Disbursements		877.86
CASH ON DEPOSIT—December 31, 1956		$2,004.75

[NOTE: U. S. Savings Bonds, Series "J," which cost $576.00 and which have a maturity value of $800.00, were donated by the Woman's Auxiliary for the Woman's Auxiliary Library Endowment Fund. Inasmuch as this donation did not involve a cash transaction, it is not reflected in the above statement.]

SUPPLEMENTARY REPORT OF BOARD OF TRUSTEES

Operating Funds

The Board of Trustees met here in Dallas on Friday evening and again today, and it had an opportunity critically to review revenue and expenditures for the first three months of this year as well as the entire 1957 budget. The Board believes that fiscal affairs generally are in good order. Nevertheless, the Board wishes to provide information about the General Operating Fund of the Association. For your review, $30 of the $50 dues from regular members are allocated to the General Operating Fund. Of the remainder, $15 are allocated to the Building Fund, $3 to the *Journal,* $1 to the Medical Defense Fund, and $1 to Woman's Auxiliary.

The Texas Medical Association has been undergoing a remarkable period of growth and development in recent years. There have been many new programs initiated, and others have been expanded. Services offered today are much greater than ever before. The Association now has some 34 boards, councils, and committees, and most of them are engaged in ambitious and worth-while programs.

These stepped-up activities are taxing the General Operating Fund of the Association. As you may have noted in our published report, the Association completed the year 1956 with a small balance of $6,000 of revenue over expenditures. Actually, had it not been for extremely favorable advertising revenue from the *Journal,* the ledger for 1956 would have been written in red. This year, the margin of income over expenditures in the current budget is extremely modest.

The 1957 budget provides a cushion of only 2.5 per cent to meet adjustments, emergencies, and additional requests which might be presented in the months ahead.

In substance, the Board wishes to inform the House of Delegates that Association activities have attained the maximum growth under present operating funds.

Group Disability Insurance

At its meeting today, the Board of Trustees also had another opportunity to analyze the group disability insurance program of the Texas Medical Association.

The program has been progressing very steadily in recent months. New applications continue to be received daily, and the program now is serving an even larger percentage of our membership. One hundred forty more members have attained coverage since February 1.

There are two important developments which the Board of Trustees would like to bring to the attention of the House of Delegates.

First, the financial operation of the disability program is a very healthy one. The loss ratio for the first year of operation was considerably smaller than has been encountered in programs offered by other state associations and by specialty societies.

As a result, I am pleased to announce that there will be no changes in the premium structure in the year ahead. Last November, Mr. J. E. Hellgren of Lumbermens Mutual Casualty Company informed us that the company expected to continue the 10-year sickness plan on the basis of premium rates which are graduated by age brackets, that is, higher premiums for older doctors. This would have represented a change for participants in the 10-year plan inasmuch as they presently are paying the same level premium, regardless of age. Mr. Hellgren now has assured us that the present healthy financial status of our program will make it unnecessary for the company to initiate this change during the coming year.

Second, the Board of Trustees was much impressed with an analysis of 35 group disability insurance programs offered by medical societies which was conducted recently by the Insurance Committee of the California Medical Association. The California survey confirms that the Texas Medical Association program is a truly outstanding one. Permit me to cite these highlights:

1. Most group programs offer weekly benefits of $100. Texas provides the maximum benefits of the 35 policies surveyed, that is, $150 a week in the 10-year sickness program, and $600 a month in the three-year sickness program.

2. The maximum accidental death benefit offered in any contract is $5,000. The Texas plan is one of 13 that offers $5,000.

3. Texas and California offer the widest range of coverage, and the greatest number of options. As you probably are aware, our plan offers a choice of three or 10-year sickness coverage, with optional waiting periods ranging from the first day to 180 days. Optional hospitalization benefits also are available.

4. The most common provision for length of payments is two years for sickness and five years for accidental disability. The Board of Trustees was impressed by the fact that Texas is the lone state which offers benefits up to 10 years for sickness. And Texas is one of 12 states which offers lifetime benefits for disability from accident.

The Board of Trustees urges all delegates to review this survey by the California Medical Association. We also would like to commend the Council on Medical Economics once again for obtaining what we believe is the most comprehensive and flexible program offered by any medical society.

Expenses of President

In action Friday night, the Board of Trustees voted to reimburse Dr. M. O. Rouse fully for the expenses which he reported in discharging his duties as President during the past year. Dr. Rouse submitted an extremely modest statement totaling $1,438 for travel, telephone, postage, and other out-of-pocket expenses.

The Board of Trustees recognizes that the amount which Dr. Rouse submitted represents only a small portion of his actual expenses and loss of time from the office. By this generous action, Dr. Rouse has established a precedent in conserving Association funds, thereby making possible their utilization in expanded services and programs. The Board of Trustees wishes to commend this great leader of Texas Medicine for placing the profession which he serves ahead of personal consideration.

Headquarters Activity

Present activities and administrative items pertaining to the headquarters staff in Austin were favorably considered by the Board of Trustees during the past two days. The doctors of Texas are fortunate indeed to have their administrative affairs carried out so capably by an energetic staff. Their activities, as recounted by the Executive Secretary in his report, deserves the sincere appreciation of each of our 7,600 members. The Board of Trustees offers this public commendation to the staff for its record of outstanding accomplishment, and for its continuing, loyal services.

Before I pass on, I would like to say just this comment with regard to the Executive Secretary. Four years ago we were fortunate to obtain the services of Mr. C. Lincoln Williston as our Executive Secretary. In that four years that he has been in charge of our central office we have enjoyed a period of growth, a period of substantial relationships with county societies such as we have never enjoyed in the 20 years that I have been with our state Association. I think we are fortunate to have a man who is a capable organizer, an indefatigable worker, and I would like to say to him for the Board of Trustees and the House of Delegates that it is a job well done, Mr. Williston (applause).

Bequests

The Board of Trustees is pleased to announce that the Texas Medical Association has been named as beneficiary in two trusts recently established by an anonymous donor. At the time income becomes available, it is to be used by the Board of Trustees for any medical program which it deems worthy. In addition, there are several other trusts presently being formulated by other individuals which name the Texas Medical Association as beneficiary. The Board of Trustees looks forward to reporting these trusts during the coming year.

And finally, on behalf of the Board of Trustees, I am pleased to report two large bequests which have been made by the late Dr. Sam E. Thompson of Kerrville. As most delegates are aware, Dr. Thompson was a past president of the Texas Medical Association and chairman of the Board of Trustees. He was respected and beloved by all of his colleagues.

Students in medical school and those of us in practice will profit from Dr. Thompson's generous support. Settlement of his estate will make available approximately one-half million dollars for the establishment of the Sam E. Thompson Scholarship Fund. Income from this fund has been left in trust to the Board of Trustees and to the dean of the University of Texas Medical Branch. It will be used to aid residents of this state attending the Medical Branch at Galveston who, without such assistance, might not be able to obtain a medical education. Loans will be made up to $3,000 per student. Dr. Thompson has stipulated that the interest rate shall not exceed 4 per cent annually.

Dr. Thompson's estate also has made available $50,000 to the Texas Memorial Medical Library Association. Income from this second bequest will be used to make the Memorial Library in Austin an even more valuable source of medical information to practicing physicians.

In reporting these gifts, permit me to read a pertinent excerpt from Dr. Thompson's writing which expressed his philosophy in establishing these funds.

"What I am endeavoring to do," he wrote, "is to create an unending service to the medical profession of Texas and through it, a better service to the sick. A man who serves only while he lives, serves for a very short period. I would like for my services—existing in some form—to go on indefinitely after my physical being has ceased to exist."

Respectfully submitted,

R. W. Kimbro, Chairman,
G. V. Brindley, Vice-Chairman,
J. B. Copeland, Secretary,
Troy A. Shafer,
Byron P. York.

Dr. Deaton: The report of the Board of Trustees and the supplementary report will be referred to the Reference Committee on Finance. Next we have the report of the Board of Councilors, Dr. Billups, Chairman.

Dr. J. T. Billups, Houston: You have the main portion of the report of the Board of Councilors in the Handbook but unfortunately we also have a supplementary report:

REPORT OF BOARD OF COUNCILORS

The usual meetings have been held and routine business handled. Details are properly filed.

If portions of any report of the Board of Councilors seem harassing, please refer to Chapter IV, Section 9, of the By-Laws. The duty of the Board is clear.

Most component county societies are active, interested, and showing expected progress, but unfortunately some remain virtually inactive and uninterested. With proper and very careful development of the central indoctrination program, gradual revitalization of stagnant societies is expected.

There is improvement in a few district medical societies, but a few are complete failures.

The Board wishes to emphasize again the need for utmost care on the part of component societies in the selection of delegates.

Again the Board is concerned regarding important decisions and policy actions by the Executive Council during its interim sessions after the attendance has dwindled to a bare quorum or less.

Recommendations

As reported last year, several items of particular interest have been under study and some are now ready for specific recommendations for the delegates' consideration.

1. The Board of Councilors considered the problem of trial of a member by the executive board of larger societies and the rights and privileges of such members. It is the opinion of the Board that the member to be tried should have the choice of trial by the executive board or the county society as a whole.

2. The Board of Councilors reviewed the provision of the Constitution and By-Laws concerning the appeal of a member to join another county medical society, when refused membership by the society having jurisdiction. It is the opinion of the Board that the provision as written should have further limitation in that permission should be granted only for joining an adjacent county medical society.

3. It is recommended that in some carefully selected instances, branch societies of component medical societies be allowed with the incorporation of the following basic requirements:

a. That request may come from the parent component county medical society by two-thirds majority vote.

b. That request may come from a semi-isolated section of an area of jurisdiction of a component county medical society where at least 80 per cent of the members in that area petition for a branch society.

c. That 25 or more members be required as the minimum to establish and maintain a branch society, all of whom must reside and practice in the area designated as the branch society area.

d. That only a member of the parent society may be a member of a branch society and disciplinary jurisdiction must remain in the parent society.

e. That before becoming operative, a request for establishing a branch society must be approved by a two-thirds vote of the Board of Councilors in regular session and such a request must be accompanied by the detailed plan of operation and necessary changes in the constitution and by-laws of the parent society.

f. That by two-thirds majority vote the parent society may abolish its branch society.

Respectfully submitted,
J. T. BILLUPS, Chairman,
R. M. TENERY, Secretary.

SUPPLEMENTARY REPORT OF BOARD OF COUNCILORS

The recommendations as enumerated in the original report need to be spelled out.

Trial of Members

Recommendation 1 requires that Chapter X, Section 3a, lines 18-21 of the By-Laws be changed from "and provided further that trials of members for unethical and improper conduct, the election of members, and the election of officers shall be by the society as a whole" to read as follows: "and provided further that the election of members and the election of officers shall be by the society as a whole. In component county societies with less than one hundred members, or in those component county societies having one hundred or more members but who do not have an authorized executive board, the trial of members for unethical and improper conduct shall be by the society as a whole. In those component county societies having one hundred or more members and having authorized executive boards, the trial of members for unethical and improper conduct may be by the society as a whole or by the executive board according to the request of the accused. This request must be in writing and must be received by the executive board of the component county society within seven days of the date the accused is notified in writing that a trial will be held. If no request is made by the accused, the executive board will conduct the trial of the member and render a verdict.

Also, that Chapter X, Section 3b, lines 7-8 be changed from: "and to conduct the trial of a member and render a verdict," to read as follows: "and to conduct the trial of a member and render a verdict unless the accused member has requested trial by the county society as a whole."

Membership in County Other Than of Residence

Recommendation 2 requires that Chapter X, Section 9, lines 4-6 be changed from "the Board of Councilors, which, on a majority vote, may permit him to apply for membership in another component county society," to read as follows: "the Board of Councilors, which, on a majority vote, may permit him to apply for membership in a component county society whose territorial limits join those of the component county society under whose jurisdiction he resides."

Branch Societies

By-Law changes concerning branch societies, recommendation 3 follow:

Designate present Chapter X, Section 2 of the By-Laws as Section 2(a). Add to the last sentence of Chapter X, Section 2, ". . .; however, branch societies may be established as provided in Section 2(b)."

Add a new Chapter X, Section 2(b) as follows:

"Component county medical societies having over one hundred members and with congested divided areas may be allowed to establish branch societies according to the following provisions: (1) twenty-five members is a required minimum for the establishment and maintenance of a branch society; such members must reside and practice in the area designated as the branch society area; (2) at least 80 per cent of members practicing in a semi-isolated section of the area of jurisdiction of the component county society must petition for establishment of a branch society; (3) approval by the parent county society of the petition for establishment of a branch society must be by a two-thirds majority vote; (4) the parent society, via its District Councilor, makes application to the Board of Councilors for permission to establish a branch society; the application is to be accompanied by a detailed plan of operation and the necessary changes in the Constitution and By-Laws of the parent society; approval is to be by a two-thirds majority vote of the Board of Councilors meeting in regular session; (5) only a member of the parent society may be a member of a branch society, and disciplinary jurisdiction is to remain with the parent society; and (6) the parent component county society retains the right to abolish a branch of its society with the approval of the Board of Councilors."

Indoctrination

There have been many inquiries concerning the interpretation of the By-Laws concerning intern, resident and military in relation to provisional membership and the indoctrination program. It is the feeling of the Board of Councilors that intern, resident, and military members should not be included on a compulsory basis during their temporary status and their compliance with these provisions should begin when regular membership begins.

The Board of Councilors feels that the intern, resident, or military member is not in a position for a county society to judge fully his desirability in most cases and that the provisions for his provisional membership and the indoctrination program would much better be delayed until he gets to be a regular member of the society where he can be properly judged in his qualifications. In order to accomplish this it is recommended that the following be added to Section 4, Chapter X, of the By-Laws:

"Intern membership, resident membership, and military membership shall not be considered as a substitute for any part of the twenty-four (24) months of provisional membership."

There have also been many inquiries concerning transfer members in relation to provisional membership and the indoctrination program. The Board of Councilors as a body and the Councilors individually, as working members of the district territories, feel keenly that transfer members should definitely be treated as new members in relation to indoctrination and provisional status, and in order to spell out this requirement we recommend that the following be added to Chapter X, Section 4, of the By-Laws:

"Any member accepted on transfer from another component county medical society shall also serve twenty-four (24) months as a provisional member and shall attend the indoctrination program before being considered for regular membership."

Respectfully submitted,

J. T. BILLUPS, Chairman,
R. M. TENERY, Secretary.

Dr. Deaton: The report and supplementary report of the Board of Councilors are referred to the Reference Committee on Constitution and By-Laws. These amendments can be adopted in this present session if the committee recommends it favorably or if the House decides to do so. Next is the report of Delegates to the American Medical Association, Dr. Milford O. Rouse, chairman.

Dr. Rouse, Dallas: I would like to refer you to our report in the Handbook:

REPORT OF DELEGATES TO AMERICAN MEDICAL ASSOCIATION

The activities of the Texas Delegates to the House of Delegates of the American Medical Association last June and last November already have been summarized in the *Journal,* and so will not be repeated here.

The Delegates would like to remind every physician that he has the privilege of presenting a resolution to the American Medical Association House, by preparing it, having the delegate from his county society to the Texas House present it before the House of Delegates of the Texas Medical Association, from which it can be carried to the American Medical Association House. County societies and individual delegates also are urged to present any resolutions having to do with the problems of medicine, to the Texas House, because the Delegates much prefer that they be reviewed thoroughly in the Texas House before taking them to the American Medical Association House.

The Texas Delegates also would like to invite every Texas doctor who will be attending the American Medical Association session in New York next June to come by and see the House in action, as visitors are always welcome. Texas will maintain a hospitality room in the American Medical Association headquarters hotel, the Waldorf-Astoria, and every Texas doctor attending the meeting not only will be welcome at the Texas room as a visitor but also will be welcome as a host, which he will be.

The 1959 Clinical Session of the American Medical Association will be held in Dallas the latter part of November that year, and the Texas Delegates are already making plans for making that the most successful Clinical Session the American Medical Association has ever had.

Respectfully submitted,

MILFORD O. ROUSE, Chairman,
TROY A. SHAFER,
JOHN K. GLEN,
L. C. HEARE,
JAMES H. WOOTEN, JR.,
T. C. TERRELL,
J. B. COPELAND,
J. C. TERRELL (delegate designate).

Dr. Rouse: I have just one further comment: In New York, the first week in June, Texas will have a hospitality room at the Waldorf-Astoria. That is your room and not just for the delegates. We want you all to come and enjoy it and let's show the rest of the country who Texans are. I would like to remind you that in 1959 the clinical session of the AMA will meet in Texas in Dallas, and in 1959 in the summer we hope and plan to elect Dr. F. J. L. Blasingame President-Elect of the American Medical Association.

[The report of the Delegates to the American Medical Association subsequently was referred to the Reference Committee on Resolutions and Memorials.]

Now, Mr. Speaker, while I am here, if I may, I will give you the Report of the Executive Council:

REPORT OF EXECUTIVE COUNCIL

The increasingly important role of the Executive Council as the interim policy-making body of the Texas Medical Association was reflected in the large number of council and committee reports which were presented at the fall meeting on September 9, 1956, and the winter meeting on January 27, 1957.

Twenty-nine committee reports were submitted at the September meeting, which followed a special called meeting of the House of Delegates. Twenty-four committee reports were given in January.

Attendance was uniformly good at both sessions. All but two members of the Executive Council were present in September, and 34 of 41 were on hand for the January meeting. Approval was given to most of the reports, although in some instances toward the end of the January meeting, the reports were merely received because the dwindling attendance of voting members made it undesirable to take action on important problems.

A high light of the September meeting was the presentation of a plaque to the Texas General Practitioner of the Year for 1956, Dr. Holland T. Jackson, Fort Worth, by the Councilor of his district, Dr. Travis Smith, Abilene. The Executive Council was preceded on Saturday by council and committee meetings, and by the second annual Conference on Public Relations. The PR Conference was well attended and featured addresses by Dick West of the *Dallas Morning News;* William A. Richardson, Oradell, N. J., editor of *Medical Economics;* and Bryan Blalock, Marshall, director of public relations, Southern Division, The Borden Company.

The January meeting of the Executive Council climaxed a full week end of activities. A record attendance of 350 physicians and their wives was recorded despite inclement weather. The Executive Council meeting was preceded by council and committee meetings, by the offering of the Association's first Indoctrination Program, and by the sixth annual Conference of County Medical Society Officials and the Symposium on Legislation. Featured guest speakers were the Hon. Olin Teague of Bryan, Representative in Congress from the Sixth District of Texas; Mrs. Mary D. Cain, editor and manager of the *Summit* (Miss.) *Sun;* and C. Joseph Stetler, Chicago, director of the Law Department of the American Medical Association.

Respectfully submitted,

M. O. ROUSE, President,
C. LINCOLN WILLISTON, Executive Secretary.

Dr. Deaton: The report of the Executive Council is referred to the Reference Committee on Reports of Officers and Committees. Next is the report of the Council on Medical Defense, Dr. Charles McGehee, chairman.

Dr. Charles L. McGehee, San Antonio: You are asked to read the report of the Council on Medical Defense in the Handbook, and we also have a supplementary report:

REPORT OF COUNCIL ON MEDICAL DEFENSE

The Council on Medical Defense has been active this year in making its malpractice surveys, and the splendid cooperation of the physicians of this state has made the surveys very successful.

The survey completed just prior to last year's annual session was highly successful in that of the approximately 7,100 cards sent out, replies were received from 4,450, which represents 62.69 per cent. This is an encouraging return as normally a poll of this nature is considered very successful if the return is around 12 per cent. The information gained from this initial survey was informative, but it did point out certain areas in which more information was needed, and as a result in December a much more detailed questionnaire was mailed out. The response to such a detailed questionnaire was encouraging in that from the approximately 7,100 questionnaires distributed, there have been, to date, 2,943 replies, which represents about a 41.45 per cent return. As a result, the Council has been able to compile a great deal of useful information and is in the process of gaining more by a continued examination and study of the information that has been compiled to date.

To give examples of some of the facts and topics being explored as a result of these surveys, the Council would like to set forth some of the following subjects:

1. Types of practice most frequently involved in malpractice threats or suits.
2. Treatment from which the threat or suit arose.
3. Present status of all threats or suits reported.
4. Facts concerning judgments and settlements.
5. Various subjects concerning insurance coverage such as limits and premiums paid.
6. Type of patient involved.

At the present time the information gained from these surveys is being studied and put into a form whereby it will be more useful to this Council and to the membership of the Texas Medical Association.

The Council recently has revised the booklet, "Facts to Protect You and Your Patient," and distributed a copy to each physician throughout the state. This booklet is essentially the same as the prior publication in all but one respect. The various types of consent forms and similar instruments have been greatly expanded to offer a much larger selection to choose from when the necessity for one of these forms arises.

The Council is also continuing its studies of problems arising from malpractice insurance coverage and hopes to have some definite information to report in this area in the not too distant future.

Respectfully submitted,

CHARLES L. MCGEHEE, Chairman,
LOUIS W. BRECK,
JOHN H. WOOTTERS,
W. P. PHILIPS,
P. M. KUYKENDALL,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

SUPPLEMENTARY REPORT OF COUNCIL ON MEDICAL DEFENSE

The Council on Medical Defense is pleased to report that its second malpractice survey has been completed and that the information gained has been compiled whereby it can be examined and studied to assist further the medical profession in combatting malpractice. This second survey has been useful to the Council by supplementing the information gained in the initial survey conducted last year and in bringing to light further facts which the first survey had not shown.

Once again, this Council would like to express its appreciation to the physicians of this state for their cooperation in helping to make this survey a successful one. The facts and information presented by this survey will be of great assistance to this Council in its continuing study of malpractice. This knowledge can also be passed on to the individual members of the medical profession through our visitation programs.

The Council would like to call to your attention a panel discussion to be held on Monday, April 29, on the "Current Trends in Malpractice."

Your Council, in discussion of the various aspects of malpractice, feels that a closer relationship between the medical and legal professions will do much to alleviate some of the problems presented in malpractice cases. As a result, your Council recommends that active support be given to those groups interested in fostering better relations between the medical and legal professions.

Respectfully submitted,

CHARLES L. MCGEHEE, Chairman,
LOUIS W. BRECK,
JOHN H. WOOTTERS,
W. P. PHILIPS,
P. M. KUYKENDALL,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

Dr. Deaton: The report of the Council on Medical Defense together with the supplementary report will be referred to the Reference Committee on Reports of Officers and Committees. Next we have the report of the Council on Medical Jurisprudence, Dr. Cleveland.

[Dr. G. W. Cleveland, Austin, then presented the following reports:]

REPORT OF COUNCIL ON MEDICAL JURISPRUDENCE

A detailed report of current state legislation was mailed in mid-March individually to each member of the House of Delegates as well as to county medical society secretaries and legislative chairmen.

Respectfully submitted,

G. W. CLEVELAND, Chairman,
ROBERT D. MORETON,
MYLIE E. DURHAM, JR.,
J. W. RAINER,
JOHN M. SMITH, JR.,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

[This report also was published under the title "Developments in State Legislation" in the March, 1957, *Journal*, pages 170-172.]

SUPPLEMENTARY REPORT OF COUNCIL ON MEDICAL JURISPRUDENCE

The Council on Medical Jurisprudence is pleased that there has been enthusiastic reception of the bulletin entitled

"Developments in State Legislation," referred to in the original report.

The Council also wishes to report that, in most cases, legislation supported by this Council is progressing satisfactorily. Legislation which has been opposed, because it was felt it would be detrimental to the health and welfare of the people of our state, has failed to pass.

Dr. John McDonald of Tulsa, Okla., who is a member of the AMA Council on Legislation and district representative of that council for Texas, Arkansas, Missouri, Oklahoma, Louisiana, and Kansas, met with the Council and discussed present federal legislation. He is working in cooperation with this Council in the establishment of an efficient system whereby physicians of our state can be informed on important federal legislation affecting the medical profession.

Respectfully submitted,

G. W. CLEVELAND, Chairman,
ROBERT D. MORETON,
MYLIE E. DURHAM, JR.,
J. W. RAINER,
JOHN M. SMITH, JR.,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

Dr. Deaton: The reports of the Council on Medical Jurisprudence will be referred to the Reference Committee on Resolutions and Memorials. Next is the report of the Council on Scientific Work, Dr. Owen, chairman.

[Dr. May Owen, Fort Worth, addressed some remarks to the House of Delegates which summarized the printed report:]

REPORT OF COUNCIL ON SCIENTIFIC WORK

The Council on Scientific Work has been active in arranging the scientific program for the annual meeting.

Beginning early in May, 1956, soon after the session in Galveston, the members of the Council had a meeting with the section officers of the Association and the officers of several specialty societies that are sharing guest speakers and meeting with us. During the year, there were two meetings of the Council in Austin and three with the officers of sections and specialty societies. At these meetings, there has been a lively interest shown by everyone, and one aim has been paramount—to have the best program possible, one that will be of interest, and one that every member of the Association will feel he cannot afford to miss.

There are 24 guest speakers from this country and Canada. The refresher courses will cover a variety of subjects and will be presented on Monday, Tuesday, and Wednesday mornings, 8:15 to 9:45, in the Baker Hotel. There has been no advance registration for these courses, but attendance will be limited, and tickets should be obtained as soon as possible upon arrival in Dallas.

The scientific portion of specialty society programs is open to all members of the Texas Medical Association.

The Academy of General Practice will give its members category 2 credit for attendance at any of the scientific events.

The President's big party has been arranged for Tuesday evening in the beautiful Ballroom of the Statler Hilton Hotel. There will be the alumni banquets on Monday evening and fraternity parties on Tuesday. The Wednesday luncheon has been planned to be a fitting climax to the ninetieth annual session of the Texas Medical Association.

Respectfully submitted,

MAY OWEN, Chairman,
L. BONHAM JONES,
E. D. MCKAY,
JOHN C. KENNEDY,
B. H. WILLIAMS,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

Dr. Deaton: I think perhaps I am not talking out of school to say that Dr. Owen is winding up about 10 years as chairman of this committee, and she deserves a great deal of commendation. Her report is referred to the Reference Committee on Scientific Work. Next is the report of the Council on Medical Economics, Dr. Harvey Renger, chairman.

Dr. Renger: We have a printed and also a supplementary report:

REPORT OF COUNCIL ON MEDICAL ECONOMICS

In 1956 the Council on Medical Economics held four meetings as a committee of the whole and two subcommittee meetings.

The Council's efforts were directed to (1) conducting the Texas Medical Association's average fee survey; (2) compiling a fee schedule for the Dependents Medical Care Program at the direction of the House of Delegates; (3) reviewing the Texas Medical Association's true group disability program underwritten by Lumbermens Mutual Casualty Company and administered by Charles O. Finley and Company; and (4) investigating group life and group accident insurance plans. Information on each project follows:

1. *Texas Medical Association's Average Fee Survey.*—This survey was completed in the summer of 1956. More than 4,000 replies were received. The results were compiled on IBM tabulating equipment. The information is available to any member of the Association requesting it for his personal use.

2. *Dependents Medical Care Program.*—At the direction of the House of Delegates, the Council compiled a schedule of fees to be used in negotiating an agreement with the Department of Defense concerning the Texas Medical Association's participation in the Medicare program. Thirty-three specialty groups and related organizations were consulted, as well as numerous officers and members of the Association. The chairman of the Council on Medical Economics was a member of the group which conducted the negotiations in Washington, D. C., with the Defense Department. In addition, the chairman also attended a general meeting in Chicago at the American Medical Association headquarters.

3. *True Group Disability Program.*—The Council on Medical Economics maintained a continuing review of the Texas Medical Association's true group disability program, holding three conferences with the underwriters, Lumbermens Mutual Casualty Company, and a series of conferences with the administrator of the program, Charles O. Finley and Company. All the financial aspects of the program were investigated and found to be in good order. Also, in two instances the Council acted as an adjudication board, as directed by the House of Delegates, in matters relating to the program.

4. *Group Life and Accident Insurance Plans.*—Various life insurance programs and group accident programs have been under study by the Council on Medical Economics,

and representatives of the organizations proposing these programs have been interviewed.

The Physicians Placement Service of the Texas Medical Association, which is under the supervision of the Council on Medical Economics, served 308 doctors and assisted 115 communities. The Placement Service showed a gain of 3 per cent of doctors placed in 1956 over 1955, and a gain of 5 per cent of community listings filled in 1956 over 1955.

Individual members of the Council on Medical Economics presented programs on medical economics before various county medical societies throughout the year in conjunction with the visitation program.

Respectfully submitted,

HARVEY RENGER, Chairman,
A. G. BARSH,
C. FORREST JORNS,
GAIL MEDFORD,
C. D. BUSSEY,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

SUPPLEMENTARY REPORT OF COUNCIL ON MEDICAL ECONOMICS

The Council on Medical Economics met in session on April 27. Investigation and discussion of the work of the Subcommittee of the Council on Medical Economics to Study Contract Medicine was undertaken by the Council. Additional members were appointed to the subcommittee to assist in their investigations.

Group life insurance plans were studied and final conclusions deferred until more study is completed.

A review of the Texas Medical Association's true group health insurance plan was discussed. A report from the California Medical Association comparing 29 state societies and 6 large county societies revealed that the Texas Medical Association's plan is leading in accidental death benefits, maximum enrollment age, widest range of waiting period, the longest length of payment for disability, largest amount of coverage, and the largest choice of coverage of the entire group studied.

The Council on Medical Economics would like to report the financial standing of our program of accident health insurance. The figures are as follows: Total premiums paid for the first year of operation, $416,612.64. Total amount paid out to policyholders, $82,671.39. The amount set aside for reserves, $295,236.39. This, of course, is our first year of operation and definitely reveals, as one can see, a sound insurance experience.

Respectfully submitted,

HARVEY RENGER, Chairman,
A. G. BARSH,
C. FORREST JORNS,
GAIL MEDFORD,
C. D. BUSSEY,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

Dr. Deaton: The reports of the Council on Medical Economics are referred to the Reference Committee on Medical Service and Public Relations. The next is the report of the Council on Medical Education and Hospitals, Dr. Albert Hartman of San Antonio, chairman. I understand Dr. Hartman is not available and the report will be made by Dr. Chapman.

Dr. John S. Chapman, Dallas: In addition to the printed report we have a supplementary report:

REPORT OF COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

The Council on Medical Education and Hospitals met during the Texas Medical Association meeting April 21, 1956, again September 8, 1956, and a third time January 26, 1957. At all three meetings, reports were given by Wilson Wells, Jr., executive secretary of the Texas Commission on Patient Care, showing continued progress by this commission. The Postgraduate Medical School of the University of Texas reported at each meeting on its growth and continually expanding efforts to improve the postgraduate teaching of the physicians practicing in Texas. It was the feeling of the Council that this is an important branch of medical education and that it should receive support from the Legislature and continued support from the University of Texas. This type of postgraduate education will continue to improve the medical care of the people of Texas.

The Council was impressed with the work of the Private Clinics and Hospitals Association of Texas in its work to improve the care of the patient in the smaller hospitals in Texas. It was pointed out that 24 per cent of all the private hospitals in the United States are located in Texas. This organization is working toward securing accreditation for the smaller hospitals without any outside pressure, and it was the opinion of the Council on Medical Education and Hospitals that every assistance possible should be granted this organization. A large amount of the care of the sick in Texas is carried out in these smaller hospitals, and their efforts to improve themselves received commendation and as much support as the Council could give them.

Dr. James A. Bethea, director of the Board for Texas State Hospitals and Special Schools, reported to the Council at each of its meetings. The Council commended Dr. Bethea and the Board on their splendid work in improving these institutions in Texas and gave them all support possible in their effort to secure more funds from the Legislature to operate these hospitals. It was noted that for the first time, in spite of the marked increase in admissions to the state mental hospitals, there had been a decrease in the over-all census; this decrease was due to the fact that by increasing the therapeutic facilities, the number of discharges exceeded the number of admissions. This was a very admirable accomplishment, and the Council felt that the Board should receive all the support possible to aid in accomplishing its goal.

Medical Educational Facilities

At each of the meetings of the Council on Medical Education and Hospitals, the question of the need for additional medical educational facilities was brought up. A committee was appointed by the chairman, consisting of Dr. Stanley W. Olson, dean of Baylor University College of Medicine, Houston, as chairman, and Dr. Melvin A. Casberg, Austin; Dr. A. J. Gill, Dallas; and Dr. John B. Truslow, Galveston, as members. This committee made a preliminary investigation and report on this problem to the Council at its January meeting. The majority report of the Council submitted to the Executive Council of the Association incorporated acceptance of the conclusion of the subcommittee, which was that a thorough study of the needs for additional medical educational facilities in Texas should be made by some professional group independent of the Texas Medical Association and financed by the Legislature. The majority report contained recommendations that this study should determine the total need for medical educational facilities in Texas; the optimum size of each facility based on the maintenance of a high level of teaching; and

the location of the facilities based on geographic distribution of the schools and the availability of clinical material.

In view of this majority report the chairman of the Council felt he should render a minority report, which follows: "The chairman of the Council on Medical Education and Hospitals finds it necessary to render a minority report. He feels that on the basis of the information contained in the report of the subcommittee and in view of the expected continued growth of Texas, additional medical educational facilities will be needed in the very near future. Because of the normal lapse of time between the first legislative move to establish such a medical school and the final operation of this school, it seems important that the Legislature should begin action at this time to consider establishing another medical branch of the University of Texas. He would, therefore, like to recommend that the Executive Council of the Texas Medical Association urge the Legislature to move at this time toward the establishing of additional medical educational facilities."

Dr. J. B. Copeland moved that the minority report be accepted with the addition of: "in the form of a third medical branch of the University of Texas to be located in Bexar County." This motion was seconded and the minority report accepted by the Executive Council. The majority report was also accepted by the Executive Council.

The Council on Medical Education and Hospitals has had complete cooperation during the year from the executive staff of the Texas Medical Association, from the University of Texas Medical Branch in Galveston, from the Southwestern Medical School branch in Dallas, and from Baylor University College of Medicine in Houston. It has also received complete cooperation from the executive director of the Board for Texas State Hospitals and Special Schools, from the Texas Commission on Patient Care, from the dean of the Postgraduate School, from the Director of the M. D. Anderson Hospital and Tumor Institute, and from the officers of the Private Clinics and Hospitals Association. Anticipating this continuing cooperation, the Council feels that its work next year will be most pleasant. The Council is ready and willing to consider any program that the state medical society feels falls within its province and wishes to thank the many people who have helped us in our work the past year.

Respectfully submitted,

ALBERT W. HARTMAN, JR., Chairman,
TRUMAN G. BLOCKER, JR.,
WILLIAM V. LEARY,
JOHN S. CHAPMAN,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

SUPPLEMENTARY REPORT OF COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

The Council heard a report presented by Mr. Wilson Wells of the Texas Commission on Patient Care regarding its program, in conjunction with the Texas Medical Association, for training medical secretaries.

A report was presented by Dr. R. Lee Clark of the M. D. Anderson Hospital relating that that institution has set up Ph.D. level graduate programs in conjunction with the University of Texas.

Dr. Milford O. Rouse presented to the Council a report of the study of mental health in Texas made recently by Dr. Francis J. Gerty. He explained how the suggestions made by Dr. Gerty would relate to medical education in Texas in residency training programs in the state mental hospitals.

Dr. A. L. Delaney, chairman of the State Committee for the American Medical Education Foundation, presented a report of the recent AMEF campaign. He stated that Texas contributed approximately the same amount to the foundation this year as it did last year.

New Medical School

The Council, along with representatives of the Texas Commission on Higher Education, Dr. J. P. Abbott, Dr. E. W. Walker, and Dr. Frank Connelly, discussed the question of additional medical education facilities in the state quite thoroughly. The following resolution, prepared by the Bexar County Medical Society, was read by the chairman:

Whereas, the Executive Council of the Texas Medical Association on January 26, 1957, recommended that "the Texas Medical Association urge the Legislature to move at this time toward the formation of a third Medical Branch of the University of Texas to be located in Bexar County"; and

Whereas, the Texas Commission on Higher Education, on April 8, 1957, as a result of a hearing on the "Proposal to Establish a Medical Department or Branch of the University of Texas in Bexar County" decided to survey the need for additional medical educational facilities in the State of Texas as soon as practical and to submit appropriate reports and recommendations to the proper Executive and Legislative Branches of the State Government before the next meeting of the Texas Legislature; and

Whereas, the University of Texas through the Board of Regents has indicated that if further studies show that additional medical educational facilities are needed, the best solution would be the creation of a new medical school and that the University of Texas appreciates the many advantages San Antonio has to offer as a potential site for a new medical school; and

Whereas, the Texas Medical Association, has always attempted to maintain its proper position of leadership in affairs medical and for the general welfare; so therefore be it

RESOLVED: That the House of Delegates of the Texas Medical Association make available to the Texas Commission on Higher Education the facilities and support of the Texas Medical Association in conducting studies that will aid in evaluating needs for a third Medical Branch of the University of Texas; and be it further

RESOLVED: That if a third Medical Branch is recommended by the Texas Commission on Higher Education, the Texas Medical Association will in the Texas Legislature support, with its full facilities, legislation providing for the establishment of a third Medical Branch; and be it further

RESOLVED: That the Texas Medical Association favors Bexar County as the site for the third Medical Branch of the University of Texas.

On the motion of Dr. Blocker, seconded by Dr. Leary, the Council voted its approval of the resolution and recommended its adoption by the House of Delegates of the Texas Medical Association.

Respectfully submitted,

ALBERT W. HARTMAN, JR., Chairman,
TRUMAN G. BLOCKER, JR.,
WILLIAM V. LEARY,
JOHN S. CHAPMAN,
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

Dr. Deaton: This report, together with the supplementary report, is referred to the Reference Committee on Medical Service and Public Relations. Next is the report of the Council on Constitution and By-Laws, Dr. John Thomas of Austin.

Dr. John F. Thomas: The report of the Council on Constitution and By-Laws appears in your Handbook. Two years ago the House of Delegates directed the Council on Constitution and By-Laws to study the office of the vice-presidency. It took two yeats to bring out our report, but this is included here. Since it details and entails some constitutional changes, no action can be taken at this time but you are requested to study the report so that some discussion and decision may be made next year. The remainder of the report specifies procedure for the establishment of committees which were established last year, the resubmission of the Harris County By-Laws changes from last year, and some other minor changes. In addition we have a supplementary report:

REPORT OF COUNCIL ON CONSTITUTION AND BY-LAWS

Abolishment of Office of Vice-President

Intermittently, the opinion has been expressed that sufficient forethought regarding nominations for the office of Vice-President has been lacking. One reason for this is that the office has carried no specific duties. At the annual session in 1955, Dr. F. J. L. Blasingame, in his presidential address, suggested the possibility of having the Vice-President succeed to President-Elect. The mattet was assigned to this Council for study and recommendation.

Various plans were subsequently considered at length by the Council. Succession of Vice-President to President-Elect and ultimately President would mean three years of work requiring considerable expenditure of time, money, and enthusiasm. This does not appear to be justifiable.

Another plan of having several vice-presidents, each from a different geographical area, was considered and discarded.

If there is to be a change, the Council suggests that the best solution is to abolish the office entirely. The following Constitution and By-Law changes are submitted carrying out this provision intention. Provision is made for a President pro tempore and the election of an interim President should the office become vacant.

Since Constitutional changes are involved, these recommendations cannot be acted on until the annual session one year from now.

Constitution.—In the Constitution of the Texas Medical Association delete the word "Vice-President" where it appears in Article III, Section 1 and Section 2 (page 5), and in Article VII, Section 1 (page 6).

By-Laws.—In Chapter II, Section 3 (page 10) delete the entire sentence beginning on line 6, "On the death. . . ." Also delete the entire last sentence of this section, beginning, "In the event. . . ."

Delete all of Chapter II, Section 4 (page 10), as now written and insert a new section as follows: "Sec. 4. In the event of death, removal, or disability of the President, the Chairman of the Board of Trustees shall automatically become the President pro tempore. He shall serve as President pro tempore until the next meeting of the Executive Council, at which time a President shall be elected to fill the unexpired term. In the event of death, removal, or disability of the President-Elect, the office shall be filled by election at the next meeting of the Executive Council or House of Delegates, whichever occurs first."

Delete the word "Vice-President" where it appears in Chapter VI, Section 11 (page 18); Chapter VII, Section 1 (page 19); and Chapter VIII, Section 2 (page 19) and Section 4 (a-1) (page 20).

In Chapter VIII, Section 4 (a-1), delete the three sentences, lines 31-40, beginning, "Within ten days after. . . ." Insert in this place the following: "In the event of death, disability, or removal of the President, the Chairman of the Board of Trustees shall act as President pro tempore. The Executive Council shall elect a President to fill the unexpired term at its next meeting. In the event of death, disability, or removal of the President-Elect, the office shall be filled by election by the Executive Council or the House of Delegates."

In Chapter III, Section 1 (page 12), at the end of the section add: "The Chairman of the Board of Trustees shall act as President pro tempore of the Association in the event of death, disability, or removal of the President. He shall serve in this additional capacity until a President is elected by the Executive Council."

These changes are herewith submitted and they will be presented again next year for action.

New Standing Committee

By action of the House of Delegates last year or at subsequent meetings of the Executive Council, the establishment of certain additional standing committees was authorized. The following By-Law changes set up Committees on Scientific Exhibits, on School-Physician Relationships, and on Rural Health and Doctor Distribution.

Committee on Scientific Exhibits.—In Chapter II, Section 3 (page 10, line 28), add "Committee on Scientific Exhibits" to the list of standing committees to which the President-Elect appoints two members.

In Chapter VIII, Section 3 (page 20), add "Committee on Scientific Exhibits" to the list of standing committees in paragraph (b) and eliminate "Committee on Scientific Exhibits" from the list of special committees in paragraph (c) renumbering the committees accordingly.

In Chapter VIII, Section 7 (page 22), change the sentence beginning on line 15 so that it shall read, "The President and Executive Secretary of the Association shall be ex officio members of the Council [on Scientific Work], and the chairman of the Committee on Scientific Exhibits shall be an ex officio member without vote of the Council for consideration of scientific exhibit matters."

Renumber Section 23 (c-1) as Section 24 (c-1) and renumber the following sections consecutively.

Add a new Section 23 (page 28) as follows:

"Sec. 23. (b-13) The Committee on Scientific Exhibits shall consist of ten members each with a term of office of five years and with two terms expiring each year. Succession in office shall be on appointment by the President-Elect at the time of election of officers and shall not require confirmation by the House; provided that the Speaker shall allow a motion, if made, requesting another appointment. Tenure of office shall not exceed two terms, provided however, that serving as much as two years of the five-year term shall be considered as serving a full term. The President may appoint the chairman when the position may become vacant. In appointing members of this Committee, the President-Elect shall make an effort to assure representation from various fields of medical practice and the several geographic areas of the state.

"It shall be the duty of the Committee on Scientific Exhibits to develop a scientific display for the Association's annual session that will enhance the teaching value of the session and will help to show the research, clinical, and educational progress being made in medicine in Texas. To this end, the Committee shall encourage members of the Association; clinic, hospital, and medical school staffs; and other selected agencies in the medical and health field to provide exhibits and shall select the exhibits to be shown. The Committee on Scientific Exhibits shall work closely

with the Council on Scientific Work, being guided by the Council in the establishment of rules and procedures for exhibition that will be in keeping with the over-all program for the annual session and in the development of a plan of awards to recognize meritorious exhibits. The chairman of the Committee shall be a member ex officio without vote of the Council on Scientific Work for consideration of scientific exhibit matters."

Committee on School-Physician Relationships.—In Chapter II, Section 3 (line 28), add "Committee on School-Physician Relationships" to the list of standing committees for which the President-Elect appoints two members.

In Chapter VIII, Section 3 (b) (line 11), delete "and" and add "and (13) Committee on School-Physician Relationships."

Renumber Section 23 (c-1) as Section 24 (c-1) and renumber the following sections consecutively.

Add a new Section 23 as follows:

"Sec. 23. (b-13) The Committee on School-Physician Relationships shall consist of ten members each with a term of office for five years and with two terms expiring each year. Succession in office shall be on appointment by the President-Elect at the time of election of officers and shall not require confirmation by the House; provided that the Speaker shall allow a motion, if made, requesting another appointment. Tenure in office shall not exceed two terms, provided however, that serving as much as two years of the five-year term shall be considered as serving a full term. The President shall appoint the chairman when the position may become vacant. In appointing members to this Committee, the President-Elect shall make an effort to assure representation from the several geographic areas of the state.

"It shall be the duty of this Committee to cooperate with the Texas Education Agency and the Texas State Department of Health in all school health work; to offer leadership in planning and developing a proper school health program by conferences between physicians and school administrators; and to explore areas of conflict or misunderstanding between school personnel and private physicians and/or medical societies, and to attempt to eliminate such misunderstandings."

Committee on Rural Health and Doctor Distribution.—In Chapter II, Section 3 (line 28), add "Committee on Rural Health and Doctor Distribution" to the list of standing committees for which the President-Elect appoints two members.

In Chapter VIII, Section 3 (b) (line 11), delete "and" and add "and (13) Committee on Rural Health and Doctor Distribution."

Renumber Section 23 (c-1) as Section 24 (c-1) and renumber the following sections consecutively.

Add a new Section 23 as follows:

"Sec. 23. (b-13) The Committee on Rural Health and Doctor Distribution shall consist of ten members each with a term of office for five years and with two terms expiring each year. Succession in office shall be on appointment by the President-Elect at the time of election of officers and shall not require confirmation by the House; provided that the Speaker shall allow a motion, if made, requesting another appointment. Tenure in office shall not exceed two terms, provided however, that serving as much as two years of the five-year term shall be considered as serving a full term. The President shall appoint the chairman when the position may become vacant. In appointing members to this Committee, the President-Elect shall make an effort to assure representation from the several geographic areas of the state.

"It shall be the duty of this Committee to strive for the improvement of rural health through study, survey, research, and exchange of information; to maintain a liaison between other rural health organizations and farm organizations; and to keep the doctors and public posted on all phases of doctor distribution throughout the state."

Resolution for Expediency.—The preceding changes in the By-Laws, particularly in Chapter VIII, which deals with councils and committees, have been numbered as distinct and separate items in relation to the current By-Laws. Consequently, if more than one change is approved, it will be necessary to number some sections differently than they appear in the report; therefore be it

RESOLVED: That the Council on Constitution and By-Laws be authorized to renumber sections as indicated following approval of changes, if any.

The Council recommends the adoption of these changes regarding the new standing committees.

Constitutional Amendments of Harris County

Following are two Constitutional amendments introduced by the Harris County Medical Society at the annual session of 1956. These amendments stipulate that intern and resident members and inactive members shall not have the right to vote, hold office, endorse applications for membership, or serve as a delegate or alternate delegate to the Texas Medical Association. A Constitutional amendment introduced by the Board of Councilors to restrict intern and resident members from the right to vote or hold office was passed at the last annual session.

RESOLVED: That the Texas Medical Association Constitution and By-Laws, Article II, Section 1, paragraph 3 (page 4), be changed to read as follows:

"Members of county medical societies who are serving internships and residencies in hospitals, as a part of their educational qualifications, and who are not in private practice, may be elected by the county societies as 'intern members' or 'resident members.' When so elected, intern or resident members shall be entitled to all of the privileges of membership in the Association, except the right to vote, hold office, endorse applications for membership, or serve as a delegate or alternate delegate to the Texas Medical Association, provided that they pay the annual dues as required in the By-Laws and that their names are duly reported in the annual reports of the county societies."

RESOLVED: That the Texas Medical Association Constitution and By-Laws, Article II, Section 1, paragraph 4 (page 4), be changed to read as follows:

"It is also provided that county societies may nominate for inactive membership those physician members who have retired from active practice of medicine. The House of Delegates, upon nomination of component county societies, may elect those physician members to inactive membership; when so nominated and elected said inactive members shall be entitled to all the privileges of membership as set out in the Constitution and By-Laws, except the right to vote, hold office, endorse applications for membership, or serve as a delegate or alternate delegate to the Texas Medical Association, provided that county society secretaries shall include all such inactive members in their respective annual reports, with such notation thereon as will at once declare their status."

The Council recommends the adoption of these resolutions.

Minor Changes for Conformity

Time and Place for Annual Session.—The Council proposes deleting mention of the selection of the time and place for the annual session from Chapter VII, Section 1 of the By-Laws (page 19) by omitting the following italicized portion: "The House of Delegates in regular session at the time of the annual session shall elect . . . *and shall select the place for and the time of the annual session.*" Other such changes were made at the last annual session and this is a correction rather than a change.

Provisional Members.—Chapter X, Section 12 of the By-Laws (page 34) grants a member of a component county medical society the right to transfer to another component county society. In line with the establishment at the 1956 annual session of provisional membership for transfer members as well as new members, the following addition of the word "provisional" (line 11) is necessary for clarification of this section: "When such a transfer is presented to a component county society within this State, it may be honored, and the applicant may at once become a provisional member thereof. . . ."

Air Force.—Chapter X, Section 4 of the By-Laws (page 32) lists those who are entitled to membership in a component county society and includes "all medical officers of the Army or Navy or of the Federal Government." Since the Air Force is now a separate branch of the Armed Services, that branch should be added so that that portion beginning on line 9 will read "all medical officers of the Army, Navy, or Air Force or of the Federal Government . . . are entitled to membership."

The Council recommends the adoption of these minor changes.

Respectfully submitted,

JOHN F. THOMAS, Chairman,
R. H. BELL,
J. CHARLES DICKSON,
DAVID T. MCMAHON, JR.,
RIDINGS E. LEE,
HOBART O. DEATON (ex officio),
CHARLES P. HARDWICKE (ex officio),
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

SUPPLEMENTARY REPORT OF COUNCIL ON CONSTITUTION AND BY-LAWS

Advisory Board to Texas Society of Medical Technologists

The By-Laws provide for a special committee in Chapter VIII, Section 3 (c) (4) (page 20) as follows:

"Advisory Board to the Texas Society of Medical Technologists (said members may be nominated by the Texas Society of Medical Technologists, and if nominations so made be not acceptable, then the President shall call for further nominations)."

Since the inclusion of this provision in the By-Laws of the Texas Medical Association, the By-Laws of the Texas Society of Medical Technologists have been amended to provide for the appointment of an advisory committee by their own board of directors without any reference to the Texas Medical Association. Consequently, the special committee is superfluous.

The Council recommends that the above identified portion of the By-Laws be deleted, and that the following phrase be renumbered.

Section on Pathology

In order to define and clarify better the field of pathology, the following changes are suggested to rename the section concerned:

In Chapter IX, Section 1 (page 29) and Chapter IX, Section 4 (page 30) delete the word "Clinical" so that the section shall be known as "Section on Pathology."

Transmission of Report Following Hearings by Grievance Committees

Chapter X, Section 18 (c), lines 19-24 (page 37), reads as follows:

"The committee after recommending action to the Board of Censors and turning over to the board its investigation file, shall furnish a written statement in brief of the finding of the committee to both the original complainant and the accused physician."

The Council feels that this requirement is unnecessary, as well as being unwise, and recommends that the above sentence be deleted.

Appeal by Member of Disciplinary Action

The last sentence in Chapter X, Section 21 (page 39), reads as follows:

"An appeal by a member of a disciplinary action by a county medical society shall be filed not longer than sixty days from the time of the action of the component county medical society."

In one county in which disciplinary action was taken, it was felt that the 60 days allowed was too long.

In Article 4506 of the Revised Civil Statutes of Texas, which deals with appeal to the courts from actions of licensing boards, a period of 20 days is allowed for appeal.

Thus, with the law of the state as precedent, it is recommended that in the last line of Chapter X, Section 21, the word "sixty" be changed to "twenty."

Respectfully submitted,

JOHN F. THOMAS, Chairman,
R. H. BELL,
J. CHARLES DICKSON,
DAVID T. MCMAHON, JR.,
RIDINGS E. LEE,
HOBART O. DEATON (ex officio),
CHARLES P. HARDWICKE (ex officio),
MILFORD O. ROUSE (ex officio),
C. LINCOLN WILLISTON (ex officio).

Dr. Deaton: The reports of the Council on Constitution and By-Laws are referred to the Reference Committee on Constitution and By-Laws.

Next we have the reports of the standing committees. First is the Committee on Cancer, Dr. Porter Brown, chairman. The report for the committee will be made by Dr. Weaver.

Dr. John D. Weaver, Austin: In addition to the printed report we also have a supplementary report:

REPORT OF COMMITTEE ON CANCER

The Committee on Cancer conducted a survey as requested by the Executive Council, attempting to evaluate the facilities for the treatment of cancer in the various districts of the state.

The result has been tabulated and is available for those who are interested. As usual the replies to the questionnaire were not complete after repeated requests, and some of the answers did not include the specific information, but

on the whole, it shows fairly well where treatment facilities are relatively good and where they are not and patients are dependent on distant centers.

The Committee has set up a conference meeting prior to the annual session of the Texas Medical Association, inviting all doctors and lay personnel of the tumor clinics to discuss the common problem and means of improving the educational, diagnostic, and treatment facilities.

Also, the Committee has been in touch with the activities of the Cancer Coordinating Committee and the Texas Division of the American Cancer Society in an advisory capacity, and in the members' opinion the amount and quality of professional education has been greatly improved in the last two or three years, but much is still to be done.

The January meeting had to be cancelled, but the Committee plans to hold one before the annual meeting and a report on it will be included in a supplemental report.

Respectfully submitted,

PORTER BROWN, Chairman,
DAVID H. ALLEN,
RICHARD G. GRANBERY,
R. LEE CLARK, JR.,
SAMUEL J. MERRILL,
CHARLES PHILLIPS,
JOHN D. WEAVER,
JACK G. S. MAXFIELD,
E. T. DRISCOLL,
J. L. GOFORTH.

SUPPLEMENTARY REPORT OF COMMITTEE ON CANCER

The conference meeting to discuss the common problems and means of improving the educational, diagnostic, and treatment facilities, which was scheduled to be held prior to the annual session of the Texas Medical Association, had to be postponed. This meeting will probably be held in conjunction with the meeting of the Executive Council in September.

A plan was made to work with the Texas Society of Pathologists to increase the facilities for cytology in our state, with the possibility of a joint meeting of the committees this fall.

The Committee will attempt to secure permission from the California Cancer Committee for the reproduction of a pamphlet entitled "Unconventional Cancer Treatment Methods," to be mailed to all members of Texas Medical Association.

We recommend that, in lay education, more consideration be given to the lower income groups.

Respectfully submitted,

PORTER BROWN, Chairman,
DAVID H. ALLEN,
RICHARD G. GRANBERY,
R. LEE CLARK, JR.,
SAMUEL J. MERRILL,
CHARLES PHILLIPS,
JOHN D. WEAVER,
JACK G. S. MAXFIELD,
E. T. DRISCOLL,
J. L. GOFORTH.

Dr. Deaton: The reports of the Committee on Cancer are referred to the Reference Committee on Scientific Work. Next is the Committee on Medical History. Is Dr. Tate Miller in the House? Gentlemen, your Committee on Medical History is fast becoming a thing of the past. Next is the report of the Committee on Public Relations, Dr. Donaldson.

Dr. Joe R. Donaldson, Pampa: The report of the committee is in your Handbook and we have also this supplementary report:

REPORT OF COMMITTEE ON PUBLIC RELATIONS

The Committee on Public Relations believes that the past year has been one of considerable activity and, in reviewing its various projects, believes a program of positive accomplishments has been followed.

The brochure on services of the Association was completed and distribution to Association members effected through the central office. This booklet includes information which should be of assistance to the individual physician in referring to services which he may obtain through his Association. The Committee endorses this project as one of distinct value.

Following previous procedures, members of the Committee on Public Relations participated in the annual Medical Students' Day programs held at each of the three medical colleges in Texas. As previously reported, representative opinions from the students were uniformly favorable, and the Committee desires to continue this program, with increased efforts to present as informative material as possible at future meetings. The members feel that it is good public relations to let these students know that the Texas Medical Associaion is interested in them from the time they decide to become physicians.

The Committee on Public Relations once again emphasizes its belief that the science fairs should be sponsored through the Woman's Auxiliary to Texas Medical Association. These fairs consist of exhibits held in schools to encourage students to enter into scientific studies. Approved by the Board of Trustees and the Executive Council, this program is deemed very worth while and has valuable aspects for medicine in Texas.

As a public relations gesture toward the newspapers of Texas, the Anson Jones Award was initiated by the Committee on Public Relations. This award is given annually for outstanding lay medical reporting. The first award will be presented to Blair Justice, reporter for the Fort Worth *Star-Telegram,* at the General Meeting Luncheon on May 1, 1957, during the annual session in Dallas. In making the Anson Jones Award, the doctors of Texas recognize the extreme importance that medical reporting has assumed in journalism and the increasing high degree of accurate scientific reporting being accomplished by reporters in this state. The award is named after Dr. Anson Jones, who, in addition to holding the degree of Doctor of Medicine, was the last president of the Republic of Texas, and drafted and presented the first request for governmental regulation to the practice of the healing arts in the Republic of Texas. The Committee is proud of the general interest which the first award has stimulated among the various newspapers throughout the state and believes that relations with the press will be enhanced in the future by this gesture of the Texas Medical Associaion.

The Committee on Public Relations is also proud of the fine results achieved by the second annual Public Relations Conference held in Austin on September 8, 1956. Attendance was very heartening and indications and comments show that the information presented at this meeting was timely and appreciated by those attending. The members feel that this annual program serves to generate and stimulate much interest among the county medical societies and encourages their public relations efforts.

Annual session publicity was reviewed and a subsequent plan pursued to disseminate information regarding the meeting in Dallas.

A specialty survey has been planned to ascertain the general practitioner/specialist proportion in Texas. The Committee feels there is a definite need for a survey of this type at the present and as anticipated for the future. This survey will be no particular problem to tabulate, since the figures may be taken from the new medical directory to be out during March or April. The central office will secure the figures on this and turn them over to the Committee on Rural Health and Doctor Distribution.

The January Conference of County Medical Society Officials and Symposium on Legislation was considered by the Committee on Public Relations to be very successful as regards attendance and presentation of program. Included with this series of activities was the first Indoctrination Program for provisional members of the Texas Medical Association. Participation in this program was good, with a total of 72 physicians attending.

A civic luncheon is to be held for prominent businessmen throughout Texas during the annual session in Dallas. Special invitations went out to individuals in the state who hold important civic and business positions. The Committee considers this an advantageous gesture in helping to build goodwill in many communities. It is hoped that future gatherings of this type will be held for increasingly larger numbers of these executives and will consequently aid public relations efforts at the local levels.

A new appointment to the central office staff has been made during the year. He is Bill E. Robertson, coordinator of advertising and public relations. Mr. Robertson works closely with the Committee on Public Relations and assists in execution of public relations programs emanating from the Texas Medical Association.

The Committee on Public Relations wishes to acknowledge the resignation of Dr. William M. Crawford, Fort Worth, as chairman, and to extend its gratitude and appreciation for his fine work and contributions while serving with the Committee. Dr. Crawford left the Committee because of the heavy burdens of his practice and lack of time to give to this group.

Respectfully submitted,

JOE R. DONALDSON, Chairman,
THOMAS ROYCE,
VAN D. GOODALL,
GLENN D. CARLSON,
RALEIGH R. CURTIS,
A. F. CLARK, JR.

SUPPLEMENTARY REPORT OF COMMITTEE ON PUBLIC RELATIONS

The Committee on Public Relations has the following additional recommendations to make to the House of Delegates:

Anson Jones Award

The Committee decided that the Anson Jones Award should be continued next year, and that (1) first prize be a plaque plus $250, as this year; (2) two honorable mention plaques be given, one of which should be reserved if necessary for weekly or biweekly newspaper reporters; and (3) scrolls, as needed, be given for further honorable mentions.

Commendation of Mr. Williston

The Committee recommends that C. Lincoln Williston, Texas Medical Association executive secretary, be commended for promotion and incorporation of the Association's public relations program within the central office of TMA to the great advantage of the Association.

Commendation of Mr. Robertson

The Committee also recommends that Bill Robertson, Texas Medical Association public relations coordinator, be commended for the excellent job he has done in promotion and arrangements for news coverage for the 1957 annual session.

Public Relations Activity Questionnaire

The Committee decided further that a questionnaire on public relations activities shall be sent to all county medical societies about May 15.

September Public Relations Conference

A proposed budget of $1,200-$1,500 is recommended by the Committee for the upcoming September Public Relations Conference.

Respectfully submitted,

JOE R. DONALDSON, Chairman,
THOMAS ROYCE,
VAN D. GOODALL,
GLENN D. CARLSON,
RALEIGH R. CURTIS,
A. F. CLARK, JR.

Dr. Deaton: The reports of the Committee on Public Relations are referred to the Reference Committee on Medical Service and Public Relations excepting the last portion of the supplementary report regarding the budget, which is referred to the Board of Trustees as a reference committee. Our next item of business is the report of the Committee on Tuberculosis, Dr. W. D. Anderson of San Angelo.

Dr. Anderson: Our report is in the bulletin, but I would like to give a brief supplementary report following a meeting of our Committee this afternoon:

REPORT OF COMMITTEE ON TUBERCULOSIS

The Committee on Tuberculosis was one of the committees for which the House of Delegates at its 1956 meeting authorized an increase from 5 to 10 members. The President appointed five new men early in his tenure for staggered terms ranging from one to five years. With new members on this Committee being drawn from widely scattered areas of the state and representing large segments of the population, it is felt that the Committee on Tuberculosis will assume new importance in the control of tuberculosis in Texas.

In May of 1956 Governor Shivers called a statewide meeting of all those interested in tuberculosis control. This meeting was held in Austin and from it arose the Coordinating Council on Tuberculosis. This council is composed of two members from the Texas Medical Association, two members from the Department of Public Health, two members representing the Department of Public Welfare, two representatives from the State Vocational Rehabilitation, two representatives from the Texas Tuberculosis Association, and other members from other interested statewide

agencies. Through discussions, suggestions, and actions of this council, it is felt and hoped that an over-all smooth functioning tuberculosis master control plan will be effected at the state level with ramifications into each county and city in the state. In the past, many interested doctors, individuals, and agencies have made an un-coordinated effort and many times an overlapping effort to diagnose, treat, and control tuberculosis. This Committee recommends that each county medical society through its committee on tuberculosis and other interested members cooperate with other local agencies in the formation of such local or county coordinating councils on tuberculosis when such councils are organized.

This Committee urges all doctors to report every case of tuberculosis to the State Department of Health, and the local health department should be specifically notified of those patients that are a health menace to the community who refuse proper treatment.

The Committee has endorsed the idea of state subsidy supporting hospitals other than state hospitals for the treatment of tuberculosis, thus overcoming the objectionable feature of patients traveling a great distance to receive treatment.

The Committee went on record as favoring the continuation of the state cigarette tax, with the funds derived therefrom continuing to be allocated to the state hospitals until the state hospital system is completely rehabilitated.

The Committee with the aid of the central office staff has again sponsored programs on tuberculosis throughout the state for county medical society meetings. Members of the Texas Chapter of the American College of Chest Physicians, all of whom are members of the Texas Medical Association, have volunteered to give their time to such programs.

The Committee has viewed with some degree of alarm the use by some doctors of various unorthodox and unrecognized regimens of drug treatment for tuberculosis. An effort is being made through the *Texas State Journal of Medicine* to inform the doctors of Texas of the latest regimens in treating tuberculosis. Since these regimens have changed from time to time in the immediate past and it is expected that they will change in the future with the introduction of new antituberculosis drugs, a continued effort will be made to keep the profession well informed and up to date relative to such.

During this recent session of the State Legislature there have been rumors and discussions relative to the creation of a board to administer the tuberculosis hospitals of Texas. In the event that such a board is created, this Committee would like to go on record as recommending the following:

(1) That each member of this board be qualified for at least 10 years of successful experience in his respective field.

(2) That the majority of the members of this board be men who are interested in the field of tuberculosis—preferably doctors.

(3) That the board be small in number, which in the Committee's opinion will make it more workable, thereby giving less centralization for the tuberculosis hospital system.

Respectfully submitted,

W. D. Anderson, Chairman,
Porter Bailes,
Dan E. Jenkins,
John W. Middleton,
John W. Overstreet,
Elliott Mendenhall,
R. B. Morrison,
J. Walter Park, III,
John A. Wiggins.

SUPPLEMENTARY REPORT OF COMMITTEE ON TUBERCULOSIS

Following a statewide meeting called by Governor Shivers in May, 1956, of all those interested in tuberculosis control, the Coordinating Council on Tuberculosis was formed. This council is an over-all group consisting of 17 agencies and organizations that are interested in the control of tuberculosis in Texas, namely, the Texas Medical Association, Texas Tuberculosis Association, State Department of Public Welfare, Board for Texas State Hospitals and Special Schools, State Department of Health, Texas Education Agency (vocational rehabilitation division), Texas League for Nursing, Lone Star State Medical Association, and others. Only three of these agencies are not tax supported, the Texas Medical Association, Texas Tuberculosis Association, and Lone Star State Medical Association.

One thing which has been brought out at the council meetings is the lack of an over-all code or program for the control of tuberculosis. This has been requested more than once by various interested state agencies, including the Legislative Budget Board, members of the Legislature, and the hospital board. The laws concerning tuberculosis are a patchwork dating back at least to 1912, when the State Tuberculosis Sanatorium was created. No effort has been made to recodify them even though the need for such has been discussed in recent years. The Texas Tuberculosis Association has appropriated $5,000 toward the expense of such a recodification.

The Committee on Tuberculosis of the Texas Medical Association feels that this is an opportune time for the Texas Medical Association to show its interest in a medical problem that has long been one of the stepchildren of medicine.

Therefore, the Committee recommends to the House of Delegates that it authorize the expenditure of not more than $5,000 over the next two-year period, to help defray the expense of the complete recodification of the tuberculosis laws of the state, such recodification to be done by an individual or group agreeable to the agencies participating and contributing to this project.

Respectfully submitted,

W. D. Anderson, Chairman,
Porter Bailes,
Dan E. Jenkins,
John W. Middleton,
John W. Overstreet,
Elliott Mendenhall,
R. B. Morrison,
J. Walter Park, III,
John A. Wiggins.

Dr. Deaton: The reports of the Committee on Tuberculosis are referred to the Reference Committee on Medical Service and Public Relations except the last paragraph of the supplementary report calling for an appropriation of $5,000, and this is referred to the Board of Trustees as a reference committee. The next item is the Committee on Mental Health, Dr. Hamilton Ford.

Dr. Ford, Galveston: The report of the Committee on Mental Health will be found in the Handbook, and we have a brief supplementary report as a result of a meeting of the Committee this afternoon:

REPORT OF COMMITTEE ON MENTAL HEALTH

The Committee on Mental Health was expanded from five to ten members by action of the House of Delegates at

the annual meeting in 1956. This expansion conforms with the recommendation of the Council on Mental Health of the American Medical Association to provide a broader representation from the various fields of medicine. As presently comprised, it consists of a pediatrician, a urologist, a specialist in public health, an internist, two general practitioners, and four psychiatrists. It has been difficult to get all members together at one time, but there has been communication between the various members and the chairman. Several subjects vital to general medicine have been acted upon during the year, and it has proved the wisdom of this diversified committee membership.

Some of the activities of the Committee during the past year are as follows:

1. Dr. P. C. Talkington and the chairman attended the third annual meeting of the Mental Health Representatives of State Medical Associations held in Chicago this past September, which was conducted by the Council on Mental Health of the AMA. These annual meetings provide an excellent forum for the exchange of ideas commonly encountered by the various state groups.

2. The Committee wishes to express its appreciation to the Texas Academy of General Practice for the sincere interest which it is now showing in the mental health activities of the state. In particular, the Committee is grateful for the formation of the Academy's three member Liaison Committee on Mental Health which has offered to work with the Committee on Mental Health. The Committee has received and noted with much interest the report of the annual survey of state mental hospitals made for and to the Board for Texas State Hospitals and Special Schools by the Texas Academy of General Practice and the Texas Neuropsychiatric Association. (A copy of this report is on file at the Texas Medical Association headquarters.) This survey was initiated by this Committee on Mental Health, but the previously mentioned organizations now have assumed responsibility for making this an annual study and report for the hospital system.

3. The Committee has made certain recommendations on legislation through the Council on Medical Jurisprudence. First, it was recommended that the Association oppose H. B. 17, entitled Psychologist's Certification Act. Dr. A. D. Pattillo, of this Committee, with the advice and guidance of Philip Overton and Dr. David Wade, appeared at the public hearing conducted by a legislative committee on this bill to register the Association's protest against it. The chief objection to the bill is its failure to define a psychologist, which in turn, would permit the practice of psychotherapy by them, but the primary one is based on its unconstitutionality.

Second, this Committee strongly urges that the Texas Medical Association give its support to the passage of the new Mental Health Code which has been presented to the current Legislature. This code is the result of several months of study by members of the law faculty of the University of Texas. It provides for modern and humane procedures to admit and treat mental patients in both public and private hospitals. The code has been referred to the Council on Medical Jurisprudence for its consideration.

4. The principal activity of this Committee during the current year has been the sponsorship of Dr. Francis J. Gerty, professor and chairman of the Department of Psychiatry, University of Illinois, who has made a comprehensive consultation covering the mental health activities in Texas. This involved many meetings, a tremendous amount of work and travel by Dr. Gerty, and its success, in a large measure, was due to the untiring guidance of Dr. Milford O. Rouse. The best summation of this study was made by Dr. Rouse in the covering letter which accompanied Dr. Gerty's preliminary report mailed by the Association to interested groups and citizens. A condensation of Dr. Rouse's letter follows.

President's Summary of Mental Health Consultation by Dr. Gerty

The Committee on Mental Health approves the general principles of Dr. Gerty's report and recommendations and wishes to make the following observations.

We regard as very sound the proposal that the ultimate long-range mental health program in Texas should be determined after observation of a pilot project which can be carried out on Texas soil and serve as a pattern for the improvement of present facilities and the creation and operation of future mental health facilities. Basically, this will resolve itself into a type of psychiatric institute, preferably located in Houston, which has a wealth of community interest, psychiatrists, and clinical material, and yet at the present time has no state mental hospital. Conveniently situated nearby would be a new state mental hospital of a capacity of 500 patients. While the type of pilot project is being developed and observed, the Legislature would continue to support adequately the state mental hospital system, as well as the tuberculosis hospitals and the special schools which are now the responsibility of the State. This proposal seems very logical, and the Committee on Mental Health agrees with the suggestion that the Houston area would be an ideal place for the initial project. If the Legislature should desire, similar projects could be started simultaneously or later in Dallas, San Antonio, and other areas.

Dr. Gerty points out the difficulty in optimum functioning under the present system, whereby the director of the mental hospitals and of mental health services reports to and works under an Executive Director who has other responsibilities in addition to those of mental health, and then on upward to a Board whose responsibilities cover the fields of mental patients, tuberculosis patients, and students in special schools. The consultant then suggests a premise that appears logical, namely, that the state mental hospitals can be expected to render maximum care to the patients therein, if the system is under a Board whose sole function is to lay down policies and to supervise mental health facilities only, with a director who is responsible directly to such a Board with full responsibility and opportunity to direct the system of mental hospitals and mental health facilities as he thinks best.

Logically, the same premise could be expected to result in better care for tuberculosis patients, if the tuberculosis hospitals should be under a Board charged only with the supervision of this particular branch of illness, with a director responsible directly to such a Board and with full responsibility of his own.

If such a change in responsibilities should ever be made by the Legislature, the other varied institutions which at the present time are under the direction of the Board for Texas State Hospitals and Special Schools doubtless would be placed under smaller special boards or transferred to other departments of the state government, as the Legislature might deem best.

The report of Dr. Gerty is, of course, concerned primarily with mental health and mental hospitals. If there should ever be any change in the present system of a board of nine members, supervising mental hospitals, tuberculosis hospitals, and the varied other institutions, the physicians of Texas would like to express a most earnest hope and anticipation that the tuberculosis hospitals and patients would be given the same consideration and support as the mental patients. As a part of the over-all problem, we would hope to be assured that the tuberculosis hospitals would be under

a separate board of citizens interested in the problems of tuberculosis—citizens who would seek the advice of competent authorities on the problems of tuberculosis.

The need continues for rehabilitation of some of the existing mental and tuberculosis hospitals, and of some additional building facilities to keep pace with the normal increase of population in Texas. Therefore we hope that the Legislature will continue appropriations for such purposes for this next biennium, as by the existing cigarette tax.

Our main interest is a sincere hope and anticipation that the Legislature will continue to make adequate appropriations for the proper professional care of those citizens with mental illness and with tuberculosis, and the dependents in the other special schools, with a long-range sensible program that should bring maximum prevention of illness, and restoration to their communities of the maximum number of patients cuted of these illnesses.

Recommendations

It is recommended that:

1. The Association oppose the passage of H. B. 17, having to do with certification of psychologists.
2. The Association give wholehearted support to the passage of H. B. 6 and S. B. 193, which provide for a new mental health code for the State of Texas.
3. A copy of Dr. Gerty's preliminary report be made available to each member of the Executive Council and to all members of the House of Delegates.
4. The Texas Medical Association express its official thanks and gratitude to Dr. Gerty for the intense interest and devotion which he has given to this irrecompensable task.
5. The Texas Medical Association assert its position and authority to support each facet of the Gerty report.
6. The Association, through its Committee on Mental Health, assume a leadership role in the "continuing planning and development committee" as outlined in Dr. Gerty's report.
7. Dr. Gerty's forthcoming final report be duplicated and made available to all members of the Association, the mechanism for this distribution to be decided upon by the appropriate group of this organization.

Respectfully submitted,

HAMILTON FORD, Chaitman,
W. S. BARCUS,
ROBERT L. JOHNSON,
DAVID M. KEEDY,
HARDY A. KEMP,
A. D. PATTILLO,
FRANK S. SCHOONOVER,
P. C. TALKINGTON,
ANDREW S. TOMB,
DOROTHY WYVELL.

SUPPLEMENTARY REPORT OF COMMITTEE ON MENTAL HEALTH

Mrs. Willis Youens, mental health chairman of the Woman's Auxiliary to the Texas Medical Association, met with the Committee and presented the tentative plans of the Auxiliary's mental health program for the coming year.

A subcommittee consisting of Dr. Dotothy Wyvell as chairman and Dr. David Keedy will act in liaison with the mental health committee of the Auxiliary to utilize better the valuable assistance which they can give to the Texas Medical Association.

Your Committee discussed the Gerty report with the primary objective of devising means by which the recommendations of that report can be made to work in the future. There is a general agreement amongst all of those persons, both lay and medical, who have consulted with Dr. Gerty that a strong leadership must be accomplished to chatt the course for future mental health planning in Texas.

Recommendations

1. It is recommended that Texas Medical Association continue to sponsor the organization of a petmanent planning and advisory committee to be developed at the state level. It proposes to combine the talents of the Governor's office, the Legislature and its budget board, the Board for Texas State Hospitals and Special Schools, and all interested organizations to implement this plan.
2. Dr. Gerty has gained their confidence and respect and it is proposed that he be asked to act as a continuing adviser and consultant for the next four years. It is believed that the public spirited citizens who financed Dr. Gerty's consultation will make additional funds available for this continuing consultation.

Respectfully submitted,

HAMILTON FORD, Chairman,
W. S. BARCUS,
ROBERT L. JOHNSON,
DAVID M. KEEDY,
HARDY A. KEMP,
A. D. PATTILLO,
FRANK S. SCHOONOVER,
P. C. TALKINGTON,
ANDREW S. TOMB,
DOROTHY WYVELL.

Dr. Deaton: The reports of the Committee on Mental Health are referred to the Reference Committee on Resolutions and Memorials. Next is the report on public health, Dr. Elias Strauss.

Dr. Strauss, Dallas: Our report in the main is in the Handbook, but believing that better information on the patt of recent graduates as to the work of health departments would aid in the sttengthening of those departments, this Committee makes the following supplementary report:

REPORT OF COMMITTEE ON PUBLIC HEALTH

The Committee on Public Health held two meetings.

On September 8, 1956, the Committee held an informal discussion on current public health problems.

On January 26, 1957, the Committee discussed a number of bills being proposed at the present session of the State Legislature. The following proposed legislation was approved in principle with the request that the Council on Medical Jurisprudence likewise consider endorsing these proposals:

Amendment to the local health services bill.
Killing of bats.
Mosquito control districts.
Shellfish legislation.
Legislation providing for safety devices on household refrigeratots.
Amendments to vital statistics law.
Amendments to present meat inspection law.
New Texas Food, Drug, and Cosmetic Act, with the suggestion that it be amended so that the fine for the first offense be $200, and for the second offense $500 to $1,000.

Proposed constitutional amendment to authorize the Texas State Department of Health to give lump sums to local health districts.

Respectfully submitted,

ELIAS STRAUSS, Chairman,
THOMAS P. KENNERLY,
BEN PRIMER, SR.,
THOMAS H. DISEKER,
H. K. BRASK,
HENRY A. HOLLE,
T. A. FEARS,
WILLIAM E. LOCKHART, JR.,
ARTHUR G. SCHOCH,
JAMES E. BALL.

SUPPLEMENTARY REPORT OF COMMITTEE ON PUBLIC HEALTH

Be it resolved that the Texas Medical Association suggest to the component county medical societies that time be given at stated intervals for reports from local health officers describing the nature of their work in relationship to the practicing physicians.

Be it further resolved that the Commissioner of Health be requested to talk before the provisional members at the orientation meeting at which time the Commissioner should outline the organization and the function of the State Department of Health.

Respectfully submitted,

ELIAS STRAUSS, Chairman,
THOMAS P. KENNERLY,
BEN PRIMER, SR.,
THOMAS H. DISEKER,
H. K. BRASK,
HENRY A. HOLLE,
T. A. FEARS,
WILLIAM E. LOCKHART, JR.,
ARTHUR G. SCHOCH,
JAMES E. BALL.

Dr. Deaton: The reports of the Committee on Public Health are referred to the Reference Committee on Resolutions and Memorials. Next is the report of the Committee on Blood Banks, Dr. Muirhead.

Dr. E. E. Muirhead, Dallas: We have a supplementary report and a supplementary resolution, in addition to the report printed in the Handbook:

REPORT OF COMMITTEE ON BLOOD BANKS

The Committee on Blood Banks during the year has kept abreast of several activities in blood banking of national scope. These include:

1. Training programs for technologists in blood banking sponsored by the American Association of Blood Banks (AABB) in conjunction with Board of Registry for Medical Technologists of the American Society of Clinical Pathologists.

2. The development of training schools for technologists in blood banking and for workshops used in postgraduate training of personnel in blood banking.

3. Various publications dealing with blood banking, especially the *Bulletin* of the AABB and publication outlets through the *American Journal of Clinical Pathology.*

4. The development of minimal standards for a blood transfusion service. In this connection a document has been formulated jointly by the AABB and the Joint Blood Council which deals not only with blood as a biologic product which must meet with the minimal requirements of the National Institute of Health, but also with technical procedures in blood banking and medical matters dealing with the use of blood.

5. Regional reference laboratories for problems in blood banking. The AABB is interested in sponsoring such laboratories to be used on a voluntary basis and for highly specialized problems. Such facilities would require the proper physician referral and other arrangements acceptable to local medical societies.

6. Clearinghouse program for exchange of blood and blood credits. Such a program is now available throughout the country as sponsored by the AABB and conducted through district offices in San Francisco, Dallas, Chicago, Jacksonville, and New York. There is need to improve the reciprocity program between this nationwide clearinghouse arrangement sponsored by independent blood banks and the various regional Red Cross centers.

7. Joint Blood Council. The Council has obtained a grant of $50,000 for two years from the federal government for the purpose of conducting a nationwide survey of blood banking facilities.

Developments in the field of blood procurement for national emergencies and particularly as sponsored by agencies in the government are considered to demand more direct participation by the Joint Blood Council in such matters. This Council is composed of representatives from the American Medical Association, the American Hospital Association, the American Society of Clinical Pathologists, the American Association of Blood Banks, and the Red Cross.

Resolution on Blood Banking

Based on the Committee's consideration of rapidly developing activities in the field of blood banking, the following resolution was presented by the committee and adopted by the Executive Council:

Whereas, blood banking, which is primarily the practice of medicine, has become highly complex, particularly within the past 15 years; and

Whereas, this complexity, consisting as it does of various administrative, technical, and immunological phases as well as the bedside practice of medicine, impinges on the care of patients; and

Whereas, those in the field of blood banking have found it advantageous to be drawn into regional and national organizations, usually designated as associations, for the purpose of considering matters of mutual interest; and

Whereas, those so engaged in these medical endeavors have been supported by general practitioners and specialists in medicine who apply the principles of blood banking to the care of patients; and

Whereas, as a segment of the practice of medicine blood banking should be maintained free of control by governmental or quasi-governmental organizations; and

Whereas, the scope of development in the field of blood banking continues to enlarge and to require constant medical guidance;

BE IT RESOLVED: That the Committee on Blood Banks is very appreciative of the practice of officers and members of the Texas Medical Association of considering in their deliberations these various developments in blood banking; and

BE IT FURTHER RESOLVED: That it is highly desirable that matters dealing with blood banking, particularly of

national scope, be considered and developed in conjunction with medical doctors active in organized medicine who by experience and practice are also active in the field of blood banking.

Respectfully submitted,

E. E. MUIRHEAD, Chairman,
K. P. WITTSTRUCK,
D. A. TODD,
W. J. EMERSON,
O. J. WOLLENMAN, JR.

SUPPLEMENTARY REPORT OF COMMITTEE ON BLOOD BANKS

The report of the Committee on Blood Banks as presented in the Handbook is considered to deal incompletely with the deliberations by the Committee. We wish, therefore, to submit a supplementary report and a supplementary resolution:

During World War II the American National Red Cross was officially designated as the agency responsible for the procurement of blood and blood derivatives for the armed forces.

At the termination of World War II, the American National Red Cross announced its National Blood Program, which was conceived to furnish most, if not all, of the civilian needs for blood and its derivatives. The national program did not develop into one which furnished all of the needs of the country. It did, however, develop into approximately 50 regional centers scattered over the country. Today blood procurement in the United States is divided mainly between the Red Cross and the independent blood banks.

During the Korean War President Truman issued a presidential directive in December, 1951, which established a National Blood Program. This program was placed under the Office of Defense Mobilization and the American National Red Cross was designated as the agency for collecting blood for defense. The Red Cross continued this activity during the Korean War.

During this period independent blood banks were requested to contribute to the program on a subcontract basis. Major blood banks patriotically did so. In the main this relationship was not satisfactory and led to major grievances and conflict involving locally established and successfully operating blood banking facilities.

Following the Korean War and its blood program five separate national organizations interested in various phases of blood banking considered means of improving the relationship in areas of blood procurement and distribution. These five organizations were the American Medical Association, American Hospital Association, American Society of Clinical Pathologists, American National Red Cross, and American Association of Blood Banks. As an outgrowth of these deliberations the Joint Blood Council was formed.

The Joint Blood Council is a separate corporation, which contains institutional members. There are two representatives from the present five parent organizations who act as directors and delegates. It was considered that the AMA represented the medical profession and all of the doctors, the American Hospital Association represented the hospital administrators, the ASCP contained the greatest single group of blood bank directors, and the ANRC and AABB represented the main agencies actually operating blood banking facilities. It was understood that the JBC would be a policy-deliberating and not an operative body.

It was also clearly understood by the directors of independent blood banks and their staff that one of the primary aims of the JBC was that of acting as the contracting agency with departments of the United States government on behalf of various collecting and dispensing agencies.

Last fall (1956) the Federal Civil Defense Administration entered into a contract with the ANRC entailing $3,000,000 for the procurement of some 300,000 pints of blood to be converted into 75,000 units of serum albumin for stockpiling purposes.

The ANRC again requested independent blood banks to enter into this activity on a subcontracting basis.

This development has given rise to grave disillusion due to the inability of the JBC after two years of operation to assert itself as the agency directly involved in the procurement of blood for national emergencies and defense.

Your Committee on Blood Banks is well aware of the complexity of blood banking, involving as it does major administrative, technical, and immunological efforts as well as the bedside practice of medicine. This has become a specialty in itself, frequently requiring complex day by day decisions. These complex problems reflect themselves in deliberations on a national level. This is why your Committee considers it highly desirable that matters dealing with blood banking, and particularly of national scope, be considered by physicians who are not active in the field of blood banking but deal directly with its problems.

The Committee wishes to submit a supplementary resolution. In so doing the Committee wishes to make it clear that it directs the resolution for your consideration at the activities of the JBC and it is neither entering into the merits nor the demerits of different philosophical concepts of blood banking. The Committee does assume the view that blood banking is a segment of the practice of medicine and as such should be maintained free of control by the government or quasi-governmental organizations. And the Committee urges the delegates to approach the problems of blood banking as problems of the practicing physician in medicine.

Supplementary Resolution

Whereas, the Joint Blood Council in its policy deliberations may deal with many complex problems of the specialty of blood banking; and

Whereas, one of the primary expressed and implied purposes of the Joint Blood Council was that of acting as a contracting agency with departments of the United States government on behalf of various blood collecting and dispensing agencies, and after two years of operation this Council has not assumed its expected role in this regard; and

Whereas, it is of utmost importance that blood collection for national emergencies and defense be widespread to develop, maintain, improve, and expand all blood procurement facilities, particularly in preparation for a possible atomic attack; therefore be it

RESOLVED: That the delegates of the Texas Medical Association to the American Medical Association be instructed to introduce a resolution to the House of Delegates of the American Medical Association at its meeting in June, 1957, urging that the present arrangement between the governmental agencies and the American National Red Cross be replaced by a new arrangement naming the Joint Blood Council as the responsible agent for arranging the prime contract for all future procurement, processing, and delivery of blood and blood derivatives for departments of the government; be it further

RESOLVED: That the delegates of the Texas Medical Association to the American Medical Association be instructed to urge before the House of Delegates of the American Medical Association that representatives of the American Medical Association to the Joint Blood Council in the

future consist of physicians who are actively engaged in the specialty of blood banking.

Respectfully submitted,

E. E. MUIRHEAD, Chairman,
K. P. WITTSTRUCK,
D. A. TODD,
W. J. EMERSON,
O. J. WOLLENMAN, JR.

Dr. Deaton: The reports of the Committee on Blood Banks will be referred to the Reference Committee on Scientific Work. The next is the report of the Committee on Industrial Health, Dr. V. C. Baird. He is not present and we will pass that. We will take up the report of the Committee on Patient Care, Dr. McVeigh.

Dr. Joseph F. McVeigh, Fort Worth: In addition to our report in the Handbook we have a supplementary report:

REPORT OF COMMITTEE ON PATIENT CARE

The Committee on Patient Care desires to report on various phases of the activity of the Commission on Patient Care, as well as the activity of the Committee on Patient Care.

Operation

The investment of the Texas Medical Association has been spent in the following way from March 19, 1956, to December 31, 1956: salary for Wilson Wells, executive secretary, totaling $4,926.15 on the basis of $510 per month, and office secretary salaries totaling $1,140.36 on the basis of $215 per month, including payroll taxes.

Office space granted to the Commission in the library section of the Association's headquarters building has been generous and comfortable. Telephone service has been excellent. Reproduction of minutes of Commission meetings, Committee meetings, and the like, as well as reports and studies along with the mailing service performed daily has been of a courteous, generous, and assisting nature. Without these services the operation would have been tremendously handicapped. With them it has been possible to offer a service for which the Commission received credit that rightfully should go to the staff of the Texas Medical Association.

Counseling and guidance from the various staff members, especially Mr. Williston and Mr. Anderson, have helped over many rough spots during the first year of operation, and the Committee members request the opportunity to continue to call upon them as the Commission grows.

The help of the Business Office staff, and especially Mr. Jones, has enabled the Commission to depend upon them for all the bookkeeping as far as travel, salaries, office supplies, and equipment. This alone has been of tremendous importance since it allowed an operation under their experienced supervision.

All in all, the daily business now is the direct result of the hospitality and cooperation of the central office staff of the Texas Medical Association. For all of this, the Commission is deeply grateful.

The new office at 1905 North Lamar Boulevard should be ready about March 15, 1957, at which time it will be possible to return the space presently occupied to Texas Medical Association.

The finances of the Commission are sufficient to enable it to continue operation another year. The Texas Medical Association has invested $2,000 for public education and fund raising, and the individual doctors $1,225. The hospitals of Texas are investing $10,000 for 1957 with a carry-over of $7,578 from 1956. The Texas League for Nursing and the Texas Graduate Nurses' Association have invested $100 each. This gives an over-all income of $19,678 for 1957.

Projects

Of immediate importance to the practicing physicians in Texas is the activity of the Commission in telling the story of the need for personnel in health careers in Texas. Approximately 35,000 copies of the brochure, "Deep in the Health of Texas," have been printed and mailed by Blue Cross-Blue Shield of Texas to teachers, doctors, hospitals, libraries, schools, deans, guidance counselors, newspapers, radio and television stations, nurses, clergy, and others. Requests are coming into the Commission office for individual copies to be sent to students who are vitally interested in health careers. Paramedical schools are receiving letters requesting information from areas of the state never before touched.

Job offerings and persons looking for employment in Texas have been referred to interested groups. In one week three nurses with graduate degrees who were interested in coming to Texas to work were referred to hospitals in dire need of directors of nursing administration and education.

Programs on health careers for the vocational guidance teachers in the high schools and colleges have been encouraged by the Commission. Dallas, Corpus Christi, and Austin area hospital councils have had panel discussions with excellent results—a total registration of more than 160 teachers. San Antonio, McAllen, Beaumont, San Angelo, and Fort Worth area hospital councils are planning them.

A program for 90 head nurses and supervisors from the southeastern part of the state was held in Houston in October by the Texas League for Nursing assisted by the Commission; 32 applications were refused because of lack of space. Another was held in Lubbock on January 29, 30, and 31, 1957, for 52 nurses in the western area, and a third in March. These panels bring before the nurses new methods of supervision and instruction so that they can take back to their hospitals improved methods of operation which will bring greater rewards in skills and improvement of patient care. Since this program has reached a self-supporting stage, the Texas League for Nursing is continuing it on an annual basis without further help from the Commission.

A program for 100 department heads in the Corpus Christi hospitals was held by that area hospital council together with local nurses and the encouragement of the Commission. This program, held February 5, 6, and 7, concerned supervisory techniques, including all departments in the hospitals. Business managers, laundry managers, dietitians, medical technologists, x-ray technicians, housekeepers, engineers, and maintenance personnel and others as well as nurses were introduced to new techniques of proper supervision by university faculty, industrial supervisory trainers, and hospital administrative faculty. The Commission is actively encouraging other areas of the state to initiate this type of program leading to the continued improvement of patient care.

The Future Nurse Clubs of Texas held their third annual convention at the Hilton Hotel in San Antonio in March. The sponsors of this growing organization, the Woman's Auxiliary to the Texas Medical Association, and the Texas State Committee on Careers in Nursing approved a suggestion from the Commission that information booths be allowed the various paramedical groups. These groups accepted this invitation and furnished information to the students and sponsors. Thanks partly to the Woman's Auxiliary to the Texas Medical Association, Texas today has a rapidly growing group of youngsters who are daily becoming more and more interested in health careers.

The Committee on Patient Care secured approval from the Executive Council of the Texas Medical Association to recommend that the Texas Commission on Patient Care appoint a committee to study and investigate the need for medical secretaries for doctors' offices, hospitals, and clinics to be trained by a two year course in the junior colleges in the state. Such a committee will meet with the various groups concerned and will endeavor to provide a solution to this personnel shortage by offering training in existing higher education programs in Texas.

The Committee on Patient Care extends its appreciation to the physicians of Texas for assistance and guidance in the improvement of patient care *deep in the health of Texas.*

Respectfully submitted,

JOSEPH F. MCVEIGH, Chairman,
TRUMAN G. BLOCKER, JR.,
G. E. BRERETON,
RUSSELL D. HOLT, JR.,
G. V. BRINDLEY, JR.

SUPPLEMENTARY REPORT OF COMMITTEE ON PATIENT CARE

The Committee on Patient Care would like to emphasize the importance of the work of the Texas Commission on Patient Care. This represents an entirely new field, and in view of the present needs of the paramedical groups, and more especially their future needs as the population of Texas continues to grow, the Commission is in a position to cooperate with all groups in regard to recruitment and the establishment of necessaty educational facilities, as well as refresher institutes and panels. At the present time we have the advantage of being able to initiate certain policies, and if we continue to follow through, we hope to be able to maintain this position.

At a recent meeting of this Committee on Patient Care, we discussed the advisability of inviting appointed representatives from the paramedical groups to become members of the Commission. The necessary mechanism for this change in the personnel of the Commission is now in motion. We feel that this action, if approved by the Commission, will serve to broaden the base of operations and interest, thus making a stronger and better approach to the solution of inadequate paramedical service for the present and the future. Your Committee has given its approval to this move and will urge its adoption at the meeting of the Commission on May 18, 1957, at Fort Worth.

Respectfully submitted,

JOSEPH F. MCVEIGH, Chairman,
TRUMAN G. BLOCKER, JR.,
G. E. BRERETON,
RUSSELL D. HOLT, JR.,
G. V. BRINDLEY, JR.

Dr. Deaton: The reports of the Committee on Patient Care are referred to the Board of Trustees as a reference committee. Next is the report of the Committee on National Emergency Medical Service, Dr. Ralph Gray.

Dr. Gray, Lake Jackson: Your committee met this afternoon. We have no further recommendations but refer you to our report in the Handbook:

COMMITTEE ON NATIONAL EMERGENCY MEDICAL SERVICE

The sum of $1,750 (maximum) has been appropriated by the Board of Trustees to the Committee on National Emergency Medical Service to be used for a civil defense field trial late in March, which will involve a simulated bombing in the Houston area. Of this sum, $1,250 was granted for the purchase of a trailer van to transport a 200-bed emergency hospital. The Association would be willing to lease the trailer to the Baylor University College of Medicine, Houston, with the stipulation that the unit would be made available to county medical societies in Texas for educational, training, and demonstrational purposes. The remaining $500 is to be used for defraying a portion of the expenses of the field trial in March. Part of the expenses will include necessary alterations and purchases in the unit, such as material to be unpacked, unwrapped, cleaned, and assembled in a functional system. Dr. Stanley W. Olson, dean of Baylor University College of Medicine, had reported to the chairman that he anticipated funds would be contributed to this project by the Federal Civil Defense Administration and the medical schools at Houston and Galveston.

This project includes a proposed Operation Rebound, which will consist of a maneuver simulating a 20 megaton bomb disaster in Houston and with the surrounding counties receiving the surviving disaster victims. This field trial will occur at the same time as a Medical Education for National Defense meeting there, and it is expected that 40 deans of participating medical schools in the United States will be in attendance and will participate actively in the maneuver as observers and judges. Various civil defense chairmen of component societies of the Texas Medical Association, the officers, and head of ancillary organizations including related civil defense groups will be actively participating.

Capt. Robert J. Birnkrant (MC) presented to the Committee in outline form a course in "The Management of Mass Casualties" as taught by the Army Medical Service School, Brooke Army Hospital, Fort Sam Houston. The course ordinarily covers a period of five days and embodies the military concept of the care of mass casualties. It was the consensus of the Committee that this is an excellent indoctrination course for civilian medical and paramedical personnel in the care of mass casualties. Capt. Birnkrant suggested that this possibly could be condensed into a one hour and a half closed circuit television program carried to a nationwide medical and paramedical audience. The Committee directed the chairman to call the matter to the attention of the Council on Scientific Work for recommendation.

Respectfully submitted,

RALPH E. GRAY, Chairman,
T. E. DODD,
W. H. HAMRICK,
J. M. HILL,
RALPH A. MUNSLOW.

Dr. Deaton: This is referred likewise to the Board of Trustees as a reference committee. Next is the report of the Committee for Liaison with Workmen's Compensation Insurance Companies, Dr. Sam Key, Jr., of Austin.

[Dr. Key read as follows:]

REPORT OF COMMITTEE FOR LIAISON WITH WORKMEN'S COMPENSATION INSURANCE COMPANIES

Our Committee held its regularly scheduled meeting April 27 with the Texas Medical Liaison Committee, whose members represent the workmen's compensation insurance companies in Texas. We are pleased to report that, as in the past, full agreement and cooperation was evident in all respects of our discussions.

It was ascertained that there have been but two instances of full arbitration proceedings between physicians and companies during 1956-1957. In each case, the discussions were held on the local county medical society level in an exemplary fashion. We are pleased to report that at the conclusion of these local proceedings, all interested parties expressed satisfaction with the results. It was also determined that there have been some 12 occasions in which, upon commencing procedures for arbitration, the interested parties themselves discovered how the question could be solved without the need for full or further arbitration proceedings. We feel that this is a demonstration of the effectiveness of an established method for review, and how merely marshalling the facts for review may serve to arrange for a mutually satisfactory conclusion.

In the first case which actually completed the arbitration plan, we feel that the Bexar County Medical Society and in particular its grievance committee deserves particular commendation for the model way in which all details were handled. We are joined in this expression by the insurance company representatives, since they felt it would scarcely seem possible to conduct the review in a better way. In connection with this case, we feel that it would be instructive to quote from the summary of the Bexar County group:

> . . . the Board would like to point out that in almost all instances of disagreement in the above bills, the difference in opinions seemed to lay with the questions as to whether or not it was proper for the charges to be made for postoperative care. It is the opinion of this Board that such charges should be an integral part of the surgical fee and no additional charges should be made, and that in cases of multiple operations, the postoperative care should run concurrently.

In conclusion, our Committee remains convinced that arbitration between Texas physicians and workmen's compensation insurance company representatives in the manner now arranged has and will continue to provide a more rapid, less expensive, always fair, and easier solution of problems between them.

Respectfully submitted,

SAM N. KEY, JR., Chairman,
FREDERICK C. REHFELDT,
M. H. MORRIS,
R. G. CARPENTER,
EDWARD T. SMITH.

Dr. Deaton: This report is referred to the Reference Committee on Medical Service and Public Relations. Next is the report of the Committee on Indoctrination and Dr. Kimbro is chairman.

Dr. Joe R. Donaldson, Pampa: Mr. Speaker, I have been asked to call attention to the printed report and make this supplemental report for Dr. Kimbro:

REPORT OF COMMITTEE ON INDOCTRINATION

Almost one-third of the provisional members of the Texas Medical Association attended the first Indoctrination Program which was offered in Austin on January 26, 1957, preceding the winter meeting of the Executive Council.

The attendance count at the all day session was 72. Offering of the program complied with action taken by the House of Delegates at its 1956 meeting.

The Indoctrination Program has been planned to incorporate information of definite value to the physician. Presentations offered at the January meeting in addition to an address by the President included talks on the following: purposes and projects of the Association, finances and dues, obligations of members to organized medicine and medical ethics, services of the Association available to members, medical economics, malpractice and legal aspects of medicine, public relations and medical public opinion, legislative issues and their effect upon private practice, voluntary prepayment health insurance, workmen's compensation laws, public health agencies and their relationships to physicians in practice, and admission policies and procedures for state hospitals and special schools. Vice-President, Dr. Foy H. Moody, Corpus Christi, presided.

The Committee on Indoctrination was prepared to present its first program on September 8, 1956, preceding the fall meeting of the Executive Council. However, less than 30 new memberships were processed during the summer months. Anticipating that attendance would have been quite small, the Committee voted to postpone the first session until January. In the future, Indoctrination Programs will be presented in Austin each January and September, immediately preceding the meetings of the Executive Council.

All provisional members are required to attend an Indoctrination Program before being considered for regular membership. Inasmuch as the provisional period for new members is 24 months, each individual will have a choice of four dates in order to satisfy that obligation.

All physicians who joined the Texas Medical Association on or after June 8, 1956, are required to attend an Indoctrination Program. This date conforms with the official notification of the change in the Constitution and By-Laws which was sent to each county medical society by the chairman of the Board of Councilors.

The Committee on Indoctrination is enthusiastic about this program. The interest in organized medicine evident by the large percentage of new members who were not only willing but eager to learn more about their chosen profession is significant. Not only will they benefit personally, but the component county societies should note a stronger, more informed membership as additional physicians take advantage of the program.

Respectfully submitted,

R. W. KIMBRO, Chairman,
J. T. BILLUPS,
G. W. CLEVELAND,
JOE R. DONALDSON,
HARVEY RENGER.

SUPPLEMENTARY REPORT OF COMMITTEE ON INDOCTRINATION

The first indoctrination program conducted in Austin in January generally was well received. However, in order that an even better program might be offered in the future, a questionnaire was mailed to the 72 physicians who attended the initial program. They were asked to give a frank analysis of the subject matter which was presented on January 26, along with suggestions and criticisms, both favorable and unfavorable.

Approximately one-half of those who attended returned their questionnaires. Here are the highlights of their comments and suggestions:

1. On the whole, the program was well received. Twenty-nine of 35 who responded to the questionnaire, or 83 per cent, felt that the program was worth while.

2. Rating presentations individually, physicians felt that nine of the 12 presentations were extremely worth while.

Only three presentations were rated as not worth while by 10 or more in attendance.

3. For the most part, participants felt that the faculty was well prepared.

4. Participants generally stated that the format was well balanced, and that the subjects selected for presentation were excellent.

5. Some sentiment was expressed that possibly too much information was offered for one day. Therefore, the number of presentations might be somewhat reduced.

6. It was generally agreed that interns and residents, as well as young physicians just starting to practice, would profit most from the indoctrination program.

7. Perhaps the greatest criticism of the indoctrination program has been expressed by "transfer" members. Many transfer members expressed resentment for being regarded as new members of the Texas Medical Association and being required to fulfill the indoctrination program requirement. They feel that the indoctrination program requirement should be waived for physician members in good standing or that the attendance should be placed on a voluntary rather than a compulsory basis.

Recommendations

The Committee on Indoctrination wishes to offer the following recommendations:

1. All sessions of the indoctrination program should continue to be offered in Austin, immediately preceding or following the fall and winter meetings of the Executive Council. The Committee on Indoctrination believes that all new members should visit the headquarters building and should receive firsthand reports of services, programs, and activities of the Texas Medical Association.

2. The Committee on Indoctrination recognizes the request of Seventh Day Adventists, who are unable to attend an indoctrination course on Saturday. It recommends that the program be offered on Sunday, once every second year. Offering of a program on Sunday also might assist other doctors who have difficulty in closing their offices on Saturday.

3. The Committee on Indoctrination offers no recommendation on the indoctrination program requirement for "transfer" members. The Committee believes that this is a question of basic policy which should be determined by the House of Delegates.

Respectfully submitted,

R. W. Kimbro, Chairman,
J. T. Billups,
G. W. Cleveland,
Joe R. Donaldson,
Harvey Renger.

Dr. Deaton: These reports are referred to the Reference Committee on Constitution and By-Laws. This brings us now to the report of special committees. First is the Advisory Committee to the President. Do you have a report, Dr. Rouse?

Dr. Milford O. Rouse, Dallas: I have no special report. Advice has been sought and freely given and appreciated.

Dr. Deaton: Next is the report of the Committee for Study of Health Costs, Dr. Tom Bond, chairman. I don't see him so we will take up the report of the Committee on Bracero Insurance and Medical Care, Dr. Charles Oswalt, Chairman.

Dr. Charles E. Oswalt, Jr., Fort Stockton: The regular report of the Committee on Bracero Insurance and Medical Care is in your Handbook. We also have a supplemental report.

COMMITTEE ON BRACERO INSURANCE AND MEDICAL CARE

The Committee on Bracero Insurance and Medical Care met for the first time on January 26, 1957, in Austin. The chairman explained that the function of this Committee was to study the effects of the bracero insurance on doctors and hospitals and to study the medical care that is being furnished the braceros.

As far as the Committee could determine, there are presently four insurance companies which handle bracero insurance. These are the Citizens Republic Insurance Company, the Mercury Insurance Company, the American Empire Insurance Company, and the American Trust Insurance Company. The chairman had been aware of only two, the American Empire and the American Trust; therefore, representatives of these were the only two invited to attend this meeting.

A general discussion was held concerning the ideas of the Committee members who had worked previously with braceros and the insurance companies. The Committee concurred with a suggestion that a slip of paper be given the bracero by his employer to authorize medical care and to indicate the bracero's name, employer's name, insurance company's name, policy number, date policy began, and date of expiration of policy.

Data from American Trust Insurance Company

Mr. H. A. Ross, Wichita Falls, representative from the American Trust Insurance Company, gave the Committee the following information: At the present time, bracero insurance premiums are the same with all companies handling this type of insurance. The premium rate is $3.95 per month. The bracero pays one-half that amount, and the employer pays the other half. This company (American Empire) presently has 66,000 braceros insured in Texas, Arkansas, Tennessee, Mississippi, Kentucky, Michigan, Minnesota, and New Mexico. These braceros have to be insured when they arrive in the United States. The minimum insurance they have to take is $1,000 life; $500 hospitalization (nonoccupational); and $5,000 hospitalization (occupational). American Trust has found that 85 per cent of the illnesses of the braceros are nonoccupational and a large number are preexisting.

Upon checking with the Department of Labor, it was found that only two physicians are checking the braceros at one port of entry, and 2,400 braceros have been seen in one day. American Trust has experienced that 40 per cent of the illnesses of braceros are caused by gastroenteritis; to help solve this problem, the company is considering the possibility of sponsoring an educational program for the braceros. Mr. Ross indicated that he had few difficulties in dealing with medical doctors. He estimated that he had trouble settling claims with about 3 out of 300 controversial claims.

The Committee members asked if it would be possible for all insurance companies which handle bracero insurance to standardize their claim forms and make them simpler to complete. At the present time, they are very lengthy and take a great amount of time to complete. Mr. Ross indicated that the changing and the standardization of forms might be possible.

Summary of Situation

Upwards of 150,000 braceros are admitted to this country each year for periods varying from 45 days to 6 months. It has been found that a large number of cases of contagious diseases are being brought into this country by these brace-

ros. In one day, two physicians examined 2,400 braceros at one port of entry.

Braceros are covered while in this country by insurance providing for a maximum of $500 for nonoccupational conditions and a maximum of $5,000 for occupational conditions. Eighty-five per cent of the claims of one insurance company have been nonoccupational, and a large number of that figure have been due to preexisting conditions. In general, the braceros are receiving adequate medical care while they are in this country, except in the case of a physician who in collaboration with an insurance company had set up first aid and receiving stations where braceros are receiving medical care by other than licensed physicians. It has been alleged that doctors from Mexico, not licensed in Texas, have been examining and treating braceros for one of the insurance companies.

The relations between one insurance company and the doctors have been good. It has been reported by this insurance company that only 3 cases out of approximately 300 have not been resolved satisfactorily to both parties. It has been reported to this Committee that one company handling bracero insurance has had unsatisfactory relations with physicians for the following reasons: (1) Charges for services rendered made by the physicians have been arbitrarily cut by the insurance company; and (2) claims have not been promptly paid and after a period of time have been denied, often for minor reasons.

Recommendations

The Committee recommends

1. That the United States Public Health Service, the United States Department of Labor, and the Texas State Department of Health be notified of the inadequacy of examinations conducted at the ports of entry.
2. That the information contained in the proceedings of the Committee concerning the large amount of preexisting diseases seen in these persons be made available to the agencies named in recommendation 1.
3. That no bracero be admitted to this country until he has been examined and screened for disease conditions.
4. That physicians in Texas who work with insurance companies insuring braceros maintain the principles of free enterprise and not allow such companies to dictate payment for services.
5. That this Committee continue to function and investigate the problems arising and that further efforts to effect a good understanding between insurance companies and physicians be continued.
6. That the portion of the report concerned with bracero insurance be referred to the Hospital-Insurance-Physicians Joint Advisory Committee, H. M. Cardwell, Memorial Hospital, Lufkin.

Respectfully submitted,

CHARLES E. OSWALT, JR., Chairman,
S. W. BOHMFALK,
J. G. RODARTE,
J. W. MATTHEWS,
GEORGE A. HOFFMAN,
J. L. MOET.

SUPPLEMENTARY REPORT OF COMMITTEE ON BRACERO INSURANCE AND MEDICAL CARE

Agencies listed in recommendations 1 and 2 of the Committee's report were notified of the situation currently existing, including information concerning the amount of preexisting diseases of foreign national contract laborers entering the United States.

Letters were received from the U. S. Department of Labor and the State of Texas Department of Health, in which they were sympathetic with the problem, but neither agency offered any solution other than to state that a further study needs to be made. In a direct conference with Dr. Henry Holle, Commissioner of Health of Texas, Dr. Holle stated that "the problem of screening foreign nationals had to be met at the port of entry, and direct responsibility legally rests with the federal authorities."

Recommendations

This Committee proposed the following resolutions:

Whereas, it has been established that many diseases of public health importance to the citizens of the State of Texas are being brought into the United States through the importation of contract laborers, or braceros; and

Whereas, this hazard exists because of inadequate physical examinations at the port of entry; and

Whereas, the U. S. Department of Labor has advised this Committee that it is cognizant of this situation and is willing to cooperate as far as possible; therefore be it

RESOLVED: That the Texas Medical Association urge the U. S. Department of Labor, through its various agencies, to insist upon thorough physical examination of each foreign national contract laborer at the port of entry, in order to eliminate the importation of any foreign national with existing illnesses or defects.

Whereas, the medical profession of the State of Texas is concerned with the medical care of contract laborers after their entry into the State of Texas; and

Whereas, the provisions for medical care of the contract laborers are provided for in the international treaty and agreements; therefore be it

RESOLVED: That the Texas Medical Association request representation on the Commission which negotiates the yearly migrant labor agreements for foreign national contract labor.

Respectfully submitted,

CHARLES E. OSWALT, JR., Chairman,
S. W. BOHMFALK,
J. G. RODARTE,
J. W. MATTHEWS,
GEORGE A. HOFFMAN,
J. L. MOET.

Dr. Deaton: These reports are referred to the Reference Committee on Reports of Officers and Committees.

Dr. Tom Bond's report for the Committee on Study of Health Costs is contained in your Handbook and they have no supplemental report. This report is referred to the Board of Councilors as a reference committee and that disposes of that:

COMMITTEE FOR STUDY OF HEALTH COSTS

The Committee for Study of Health Costs has reviewed the matter of catastrophic health insurance.

It probably will be recalled that catastrophic health insurance was originated by Blue Shield in 1951 and included

poliomyelitis and eight other dreaded diseases. The experience was very good, and in a few years revenues had accumulated. It became evident that additional coverage could be supplied at the present rate. Blue Shield is a nonprofit organization and cannot declare cash dividends. Accumulation of funds must be given to the policyholders by some other method. It was decided that rather than reduce the dues, a better method would be to include another catastrophic disease. In October, 1954, the coverage was extended to include cancer. A maximum amount of $5,000 was divided with $2,000 for medical and surgical expenses and $3,000 for hospital, nurses, and so forth. The time interval was extended to five years. This was probably the first time such an experiment in coverage had ever been made anywhere. There were no statistics on which to base the cost, but it was thought that the present premium would be sufficient. There was certainly no question as to the need for such coverage. Cancer control, or the care of the patient who already has cancer, is one of the most urgent medical needs confronting physicians. This coverage was, and continues to be, to a large degree, an experiment. It is being watched by other insurance companies all over the country.

To date, the experience has been somewhat disappointing as this endorsement has been losing money. Both the medical-surgical and hospital costs are rising. As doctors are aware, the basic health policy is not insurance, but a budgeting of medical expenses on a prepayment basis. This catastrophic coverage, however, is true insurance, and it is up to the members of the Texas Medical Association, through their cooperation, to make this coverage practical. If it does not work, other companies will feel that it is impractical and will not go into this field. The socialists will say, "We told you so," and that the federal government is the only one that can insure this type of coverage. Therefore, major medical catastrophic coverage as being written by the various companies must be made to work, and to this end this Committee:

1. Respectfully suggests that the Texas Medical Association, through the appropriate council or committee, prepare a fee schedule using the unit system and distribute this to each member.

2. Respectfully suggests the creation of a grievance committee on the state level to which bills for service can be referred by any insurance company which feels that an overcharge is being made.

3. Respectfully recommends that an insurance education program be carried to the medical profession by every means possible, such as through the *Journal,* all indoctrination programs, visitation programs by the Councilors, and lectures in medical schools and to interns and residents in the hospitals.

It is the firm belief of this Committee that with the wholehearted cooperation of the members of the Texas Medical Association and the hospitals of the Southwest, not only will catastrophic insurance succeed but also this greatly needed coverage can be extended to include other disabling diseases.

Respectfully submitted,
TOM B. BOND, Chairman,
RUSSELL L. DETER,
JOHN H. WOOTTERS,
GEORGE M. HILLIARD,
ROY T. LESTER.

Dr. Deaton: The next is the report of the Committee on Cardiovascular Diseases, Dr. George A. Spikes, chairman.

[Dr. Spikes, Hallettsville, presented the following:]

REPORT OF COMMITTEE ON CARDIOVASCULAR DISEASES

The Committee on Cardiovascular Diseases was appointed in 1956 by the President of the Texas Medical Association upon request of the Texas Heart Association. In setting up the Committee, the President believed its purposes should be to carry on a continuing study of cardiovascular diseases with particular responsibility as follows:

(1) To call attention of all members of the Texas Medical Association to the significance of cardiovascular diseases.

(2) To stress the relationships of cardiovascular diseases to other diseases.

(3) To inform the members of the Texas Medical Association of significant advances in diagnosis and therapy in cardiovascular diseases.

The Committee has decided that while it was sired by the Texas Heart Association, as a committee of the Texas Medical Association its prime responsibility is to the physicians of Texas and to the Texas Medical Association. Examples of cooperation with the Texas Heart Association which will be mutually beneficial are as follows:

1. Refresher courses for Texas physicians sponsored jointly by the Texas Heart Association and this Committee of the Texas Medical Association.

2. County medical society programs sponsored jointly by this Committee of the Texas Medical Association and the Texas Heart Association.

3. Educational work among the physicians of Texas in an effort to enlist support for the Texas Heart Research Foundation, a nonprofit research foundation sponsored by the Texas Heart Association.

The Committee believes that the avenues by which it can communicate with the physicians of Texas in order to carry out the requests of the President are by presenting monthly in the advertising pages of the *Texas State Journal of Medicine* timely topics in diagnosis and therapy of cardiovascular diseases and by disseminating items of more urgency or less general interest among the membership by direct mailings. Concrete plans for a page in the *Journal* have been formulated.

The Committee recommends to the members of the Texas Medical Association the services of the Texas Heart Association. High among these services is the provision of outstanding speakers for the annual meeting. A speaker's bureau has been set up, and a list of subjects and speakers available to county medical societies will be published.

The Committee is on record as strongly opposing any subsidization or socialization of the diagnosis or treatment of cardiovascular disease. Federal or state subsidy in whatever guise constitutes a potential hazard to the private practice of medicine. Another present danger is the use of publicly subscribed money by charitable or service organizations for the care and treatment of cardiovascular disease. The Committee favors the use of this money for research, education, and community service and not for patient care. The Committee recommends as an alternative to the socialization of treatment of cardiovascular disease the setting up of a directory of Texas services for cardiac patients with referral information. It is believed that there are already adequate facilities in Texas for the care and study of all types of cardiovascular diseases, and this Committee recommends that these facilities be made known and available to physicians and through physicians to their patients, rather

than that any separate organization for the care and treatment of cardiovascular diseases be set up.

Respectfully submitted,

GEORGE A. SPIKES, Chairman,
KLEBERG ECKHARDT,
ROBERT M. BARTON,
P. K. SMITH,
OLIN B. GOBER,
H. H. LATSON,
ROBERT E. LESLIE,
GEORGE E. CLARK, JR.,
JOSEPH F. MCVEIGH,
PAUL V. LEDBETTER,
GEORGE R. HERRMANN,
BAIN LEAKE.

SUPPLEMENTARY REPORT OF COMMITTEE ON CARDIOVASCULAR DISEASES

The Committee on Cardiovascular Diseases approved the speakers bureau as now constituted. Programs of excellent quality are now available to any county medical society upon request. In the near future the program will be advertised to each of the component county medical societies and use of the speakers bureau will thus be encouraged.

The Committee heard the report of the chairman on his meeting with the Board of Trustees. After careful consideration the Committee decided to ask the Texas Heart Association through its Board of Directors for sufficient funds to allow publication of a monthly page in the *Texas State Journal of Medicine*. Copies of several proof pages were studied and suggestions made.

It is appropriate to report here that the board of directors of the Texas Heart Association has approved appropriation of sufficient funds to allow publication of a monthly page. It is therefore possible for this Committee to proceed with its program, and this will be done.

Respectfully submitted,

GEORGE A. SPIKES, Chairman,
KLEBERG ECKHARDT,
ROBERT M. BARTON,
P. K. SMITH,
OLIN B. GOBER,
H. H. LATSON,
ROBERT E. LESLIE,
GEORGE E. CLARK, JR.,
JOSEPH F. MCVEIGH,
PAUL V. LEDBETTER,
GEORGE R. HERRMANN,
BAIN LEAKE.

Dr. Charles P. Hardwicke, Austin, Vice-Speaker: The committee report as well as the supplementary report is referred to the Reference Committee on Scientific Work. We will continue next with the Committee on General Arrangements for the Annual Session, Dr. Lee.

Dr. Ridings E. Lee: We have no additional report:

REPORT OF COMMITTEE ON GENERAL ARRANGEMENTS FOR THE ANNUAL SESSION

The Committee on General Arrangements for the Annual Session has cooperated with the central office in accomplishing any arrangements in which it could be of assistance. The details of all arrangements are printed in the program.

The Committee would like to thank Mr. Williston and his staff for the extensive amount of work they have done which has made the burden of this Committee minimal.

Respectfully submitted,

RIDINGS E. LEE, Chairman,
GEORGE M. JONES,
DALE J. AUSTIN,
ROBERT J. ROWE,
TAYLOR T. PICKETT.

Dr. Hardwicke: This report is referred to the Reference Committee on Reports of Officers and Committees. We will continue with the report of the Committee on Maternal Mortality. They have no supplementary report, and the report as printed is referred to the Reference Committee on Scientific Work:

REPORT OF COMMITTEE ON MATERNAL MORTALITY

The Committee on Maternal Mortality began the study of all deaths since January 1, 1955, in which the death certificate at the Texas State Department of Health indicated the patient had been or was pregnant. In 1955 the Committee received 129 reports of deaths, and up to February 1, 1957, the Committee has received 141 reports for 1956. Unfortunately, the Committee only has complete statistics for 1955, as questionnaires for 1956 are still being sent out and the cases are now under study.

The Committee has tried to consider carefully all of the information available on each case and to decide whether the death was preventable or nonpreventable; whether the doctor, patient, or both were primarily at fault; and possibly what might have been done to save the mother. The Committee members realize and take into consideration the fact that under the circumsances in which many of these deaths occur, most physicians could do no better. The Committee understands that whereas most physicians in the state have fine hospitals with adequate equipment, supplies, and blood, as well as excellent consultation service immediately available, there are many more who are doing deliveries in homes and poorly equipped offices or hospitals and in many cases miles from blood and expert help. Therefore, in some of the cases in which the members feel the death was preventable and the errors were on the part of the physician, they fully realize that with the equipment available and at the time, they probably could have done no better.

Some deaths are easily preventable up to a certain time, but then the process becomes irreversible and nothing can stop the march of death. Measuring those factors and properly judging them is not always easy or even possible. The reasons for the lapse of time is not always determinable. The patient, the family, the hospital personnel, the nurses, and the doctor all contribute to it. For these and other reasons, all deaths that are academically preventable are not so in actual practice. The Committee has tried to be unbiased and without prejudice in arriving at decisions in order that it may determine what direction efforts to lower the death rate shall take.

After using the original questionnaire in 1955 and part of 1956, it was found to be wholly inadequate as well as identifiable so if copies should have fallen into the wrong hands, they may have led to trouble. It was for that reason that the Executive Council of the Texas Medical Association believed that no direct reports should be sent to the individual physicians. In mid-1956 the Committee started using a new form that allows the members to evaluate better the

cases being studied and at the same time the physician concerned cannot be identified in any way. In the near future the Committee will be able to start sending individual reports to the physicians that indicate the desire for one. The members are sorry that they could not do so in some of the earlier cases.

The response of physicians for the most part has been excellent, although the Committee averaged about three letters on every case in 1955 in order to get a 75 per cent response. So far, for 1956 the results look much better, and the Committee believes that as it begins to function better and is able to report some interesting cases, the benefits of this Committee will begin to be felt statewide. Already the Committee can see a trend from the 1955 reports that more and better blood bank facilities are going to be necessary in order to decrease the number one killer (hemorrhage) in childbirth. The high percentage of the patients dying who had no prenatal care indicates another avenue of approach in reducing the maternal mortality in Texas. The chairman is sure that those physicians connected with medical schools will become more aware of some of the dangers which must be stressed in teaching as they learn and profit from the cases studied.

The figures in table 1 show the causes of death as determined for 1955.

TABLE 1.—*Statistics on Causes of Death.*

Total deaths reported		129
Autopsies (27%)		35
Cases satisfactory for study (76.7%)		99
Cases unsatisfactory for study (23.3%)		30
Preventable		
Doctor		25
Patient		27
Doctor and patient		10
(One patient had a ruptured uterus in the home and was sent to the hospital in shock; she was refused admission because of finances.)		
Nonpreventable		28
Nonmaternal		7
Unknown		2
Deaths associated with cesarean sections		13
Home deliveries		
Physician	4	
Midwife	2	
Other	5	
Dead on arrival		8
No prenatal care		37
Direct causes of death		
Hemorrhage		38
Septicemia		17
Toxemias of pregnancy		12
Lower nephron nephrosis		6
Cardiac disease with decompensation		5
Cardiac arrest		5
Miscellaneous		7
Unusual cases (maternal and nonmaternal)		9
Total		99

HEMORRHAGE (38)

Ruptured ectopics	8
Abortions	1
Ruptured uteri	4
Placenta previa	5
Inversion of uterus (home delivery)	1
Afibrinogenemia	4
Postpartum bleeding—cause undetermined	10
Abruptio placenta	1
Unrecognized lacerations	4

SEPTICEMIA (17)

Abortions	11
Term deliveries (2 cesarean sections)	6

TOXEMIAS OF PREGNANCY (12)

Eclampsia	9
Postpartum (1)	
Questionable—found beside the road with convulsions, no history (1)	
No prenatal care (8)	
Preeclampsia (No prenatal care in either case)	2
(One with associated abruptio placenta and cesarean section to control bleeding and lower nephron nephrosis)	
Hyperemesis gravidarum with liver failure	1

LOWER NEPHRON NEPHROSIS (6)

Abruptio placenta	3
Cesarean section—with hypotension due to anesthesia	1
Cesarean section in which O negative blood with AB substance added	1
Infected abortion	1

CARDIAC DISEASE WITH DECOMPENSATION (5)

Congenital heart disease	
Septal defect	1
Patent ductus arteriosus	1
Rheumatic heart disease	1
Hypertensive cardiac disease	2

CARDIAC ARREST (5)

Cesarean sections	3
Ruptured ectopic	1
Uncontrolled metromenorrhagia—unruptured ectopic found on exploratory surgery	1

MISCELLANEOUS (7)

Amniotic fluid embolus	2
Pulmonary embolus	2
Hydatidiform mole with fulminating toxic condition	1
Unknown (sudden unexplained postpartum death—no autopsies)	2

UNUSUAL CASES (9)

1. Patient died suddenly at home—seven months pregnant. Autopsy—rupture lower uterine segment and adenocarcinoma in the right broad ligament. (Maternal death—nonpreventable)
2. Patient in normal labor with sudden shock—no prenatal care. Autopsy—tear and hemorrhage from a granulosa cell tumor implacted between the head and the sacrum. (Maternal death — nonpreventable)
3. Cardiac arrest—laparotomy for bilateral ovarian cyst. Coincidental early unruptured tubal pregnancy found. (Nonmaternal death)
4. Hospitalized for acute bronchopneumonia during eighth month. After hospitalization, spontaneous uneventful labor. Autopsy—acute pancreatitis and bronchopneumonia. (Nonmaternal death)
5. Known epileptic died immediately after attack—was four months pregnant. (Nonmaternal death)
6. Dead on arrival—automobile accident. Postmortem cesarean section was done and blood found in the uterine cavity. (Questionable as to maternal—nonmaternal)
7. Cerebral vascular accident — patient was four months pregnant. (Nonmaternal)
8. Acute adrenal cortical insufficiency — 15 years of treatment for Simmonds' disease following postpartum pituitary necrosis. (Nonmaternal)
9. Patient suspected pregnancy—attempted induced abortion. Autopsy—nonpregnant uterus. (Nonmaternal)

The Committee on Maternal Mortality is having the same difficulty that the committees in the larger cities are having. It is not getting the reports of all the maternal deaths. This is because many of the death certificates do not indicate pregnancy in many cases, although the onset of the disease causing the death started because of the pregnancy. Therefore the Committee would like to recommend two methods of solving this problem.

Recommendations

The Committee recommends that:

1. The Texas State Department of Health revise the death certificate so that there is a space to fill out if the patient has been pregnant during the preceding 12 months.

2. All cases in which deaths may be attributed to causes with the onset due to pregnancy, or there has been a recent pregnancy, be reported directly to the Texas Medical Association and hence to this Committee.

3. Also, this Committee be continued with as little change as possible.

Respectfully submitted,

GARTH L. JARVIS, Chairman,
E. K. BLEWETT,
D. M. GREADY,
C. P. HAWKINS,
W. H. JONDAHL,
R. E. MOON,
WILLIAM R. KNIGHT, III,
CARL F. MOORE,
STEWART A. FISH.

Dr. Hardwicke: The next committee report is that of the Committee on Medicare, Dr. Small. Apparently there is no one here to report for that committee. We will pass on to the Committee on Memorial Services. No report from that committee. Next is the report from the Committee on Problems of the Aging. No report from that Committee. The Committee on Rural Health and Doctor Distribution, is there any report—no report from that committee. The Committee on School-Physician Relationships, Dr. Jay J. Johns.

Dr. Johns, Taylor: Our report is in the Handbook, but after a meeting today we have a short supplementary report:

REPORT OF COMMITTEE ON SCHOOL-PHYSICIAN RELATIONSHIPS

The Committee on School-Physician Relationships met in September and in January at the time of the meeting of the Executive Council. This Committee is happy to report the following accomplishments for the year:

1. The Texas Medical Association published and distributed the pamphlet "The ABC's for School Health Committees" to all of its members.

2. The Association published and distributed a summary of the first statewide Conference on Physicians and Schools.

3. The Committee held three local conferences on school-physician relationships, which the Committee felt were very helpful in those areas.

4. The Committee was enlarged to 10 members with the thought that it might secure wider geographic representation.

5. The Committee helped numerous county medical societies work out their policy for poliomyelitis vaccine program by referring them to the policy on immunization and health examination as adopted by the Texas Medical Association in 1956, and by stressing that each local society should and could vary from that policy if the local situation made it seem wise and expedient to do so.

6. The Committee reviewed the bulletin prepared by the Texas Ophthalmological Association entitled "Planning and Operating a Program for the Detection and Correction of Eye Defects Among School Children of Texas" and approved it for use in Texas public schools, recommending that this bulletin be published by the Texas State Department of Health for distribution to the schools.

Recommendations

The Committee on School-Physician Relationships makes the following recommendations:

1. That the Speakers Bureau of Texas Medical Association include programs on school-physician relationships.

2. That the *Texas State Journal of Medicine* by editorials, advertisements, or other means urge county medical societies to have conferences on school-physician relationships.

3. That every county medical society send one or more representatives to the statewide Conference on Physicians and Schools, which the Committee plans to hold in Austin in 1958.

Respectfully submitted,

JAY J. JOHNS, Chairman,
M. T. BRASWELL,
R. K. ARNETT,
E. E. ADDY,
A. R. HAZZARD,
D. J. SIBLEY,
L. H. LEBERMAN,
R. V. ST. JOHN,
E. L. HUNT,
WILLIAM R. KLINGENSMITH.

SUPPLEMENTARY REPORT OF COMMITTEE ON SCHOOL-PHYSICIAN RELATIONSHIPS

The Committee on School-Physician Relationships discussed tentative plans for the second statewide Conference on Physicians and Schools to be held in January, 1958, subject to the approval of the Board of Trustees.

Recommendation

This Committee recommends that the House of Delegates amend the Texas Medical Association Policy on School-Child Immunizations and Examinations, paragraph 5, to read as follows:

"The local board of education should be encouraged to adopt regulations to enable the school to meet its responsibility in accomplishing these objectives; to-wit the local board of education should require that each child be immunized against smallpox, poliomyelitis, diphtheria, and tetanus as a prerequisite to school attendance."

Respectfully submitted,

JAY J. JOHNS, Chairman,
M. T. BRASWELL,
R. K. ARNETT,
E. E. ADDY,
A. R. HAZZARD,
D. J. SIBLEY,
L. H. LEBERMAN,
R. V. ST. JOHN,
E. L. HUNT,
WILLIAM R. KLINGENSMITH.

Dr. Hardwicke: The committee report as published in the Handbook, as well as the supplementary report, is referred to the Reference Committee on Resolutions and Memorials.

The report of the Committee on Rural Health and Doctor Distribution as printed in the Handbook is referred to the Reference Committee on Medical Service and Public Relations:

REPORT OF COMMITTEE ON RURAL HEALTH AND DOCTOR DISTRIBUTION

Between the years of 1952 and 1955, the Texas Medical Association through the special Committee on Rural Health and Doctor Distribution undertook the task of surveying the state of Texas to obtain sufficient information about the Texas doctor supply, evaluate any claim or charge of a doctor shortage, and establish a course of positive action to aid communities which had a genuine need for doctors.

The final results of this survey were reported to the House of Delegates in April, 1956. This survey attracted the attention of Bill Barnard of the Associated Press and in May, 1956, a series of feature stories by Garth Jones also of the Associated Press appeared in the major newspapers of Texas. Mr. Jones' objective review of the Association's efforts and his straightforward reporting are sincerely appreciated by this Committee.

The Committee feels that the distribution of doctors over the state has improved. The visitation of members of the Committee and members of the central office to communities needing doctors has improved the public's confidence in the medical profession.

During the past year the Committee has devoted most of its time to problems of rural health. The Committee has had several meetings with representatives from the Agricultural Extension Service and the Texas Farm Bureau attempting to develop a system of closer cooperation between the medical profession and the farm service organization and the members of rural committees.

The Committee hopes these efforts will bring about better understanding and a solution to the rural health problems in Texas.

Respectfully submitted,

CHESTER U. CALLAN, Chairman,
STEPHEN B. TUCKER,
T. CHARLES MCCORMICK, JR.,
GEORGE D. BRUCE,
ROY E. WILSON,
J. L. WRIGHT, JR.,
JIM CAMP,
NEIL D. BUIE,
DICK K. CASON,
G. V. PAZDRAL,
CHARLES A. SMITH.

Dr. Hardwicke: The report of the Committee on Problems of the Aging as printed in the Handbook will be referred to the Reference Committee on Medical Service and Public Relations:

REPORT OF COMMITTEE ON PROBLEMS OF THE AGING

The Committee on Problems of the Aging was newly created during the past year to meet the mounting problems of the rapidly increasing aging population of the state. The first meeting was held September 9, 1956, at the headquarters building of the Texas Medical Association with a good attendance of members as well as a number of guests. The policy of the Committee, it was stated, would be to concentrate more on the socio-economic aspects inasmuch as the Texas Geriatrics Society is currently covering the medical problems admirably. The Committee expressed its cooperation with this related society by endorsing the questionnaire of its special committee to survey the facilities and services available for the aged in Texas.

Dr. Henry A. Holle favored the Committee with a report on the broad program of activities of the American Medical Association's Committee on Aging, of which he is a member. Based upon his outline, the Committee resolved to direct its efforts along with the AMA, particularly as follows:

1. To inform the medical profession of the availability of information regarding the aging process.
2. To stimulate medical society interest in the problems of aging.
3. To impress upon the practicing physician the importance of the role he can play by assuming community leadership to enrich the lives of older citizens.

Population, morbidity, and mortality statistics were presented and reviewed. The decline of certain acute illnesses and the general increase of chronic illnesses over the years, along with the increasing aging population is obvious. The changing requirements for adequate medical care in this changing situation requires careful consideration and a great deal of planning, preparation, and effort. Further consideration of these problems will demand attention for some time to come.

The second Committee meeting was held in Austin January 26, 1957, with some progress reported in several respects. The conversion of a former school building into a center for activities of and for older citizens in Gregg County, activities in homes for the aged in Houston, and various projects in several localities were described as examples of what can be done. Adult educational activities, local recreational and church activities, and the enlistment of pastors for developments in meeting older peoples' needs were discussed. The relation of employment, economics, and security to the well being and the health of our elder citizens was discussed.

Progress on the Texas Geriatrics Society's committee surveying present facilities and services in Texas was reported. Of more than 500 questionnaires mailed there were more than 200 replies with substantial information on about 40 localities. The results are now being analyzed, and a report will be presented at the Texas Medical Association meeting in April. It will serve as a starting point for further estimation and surveying of needs.

Plans for a conference on "Health Needs of the Aging in Texas" are in progress due to the welcome cooperation of the American Medical Association Committee, the Texas Medical Association, and the Texas Geriatrics Society. The AMA Committee under the chairmanship of Dr. Henry B. Mulholland is calling a Regional Conference on Aging with representation from nine states for April 27 and 28 (Saturday and Sunday) to be held with the Texas Medical Association in Dallas. For the conference on health needs of the aging in Texas, invitations will be extended to interested laymen as, for example, representatives of the Texas Gerontological Society, the Texas Social Welfare Association, the Texas Society for Mental Health, and the Dallas Council of Social Agencies. This conference should help greatly in determining what is available in Texas, what is needed, and how to meet the requirements for adequate care of the older citizens.

The Committee devoted special attention to the employment of elderly people. For their self-respect, for their better economic status, and in almost any respect most people would prefer some form of gainful occupation. Furthermore, one can foresee the necessity of correcting a tendency in which fewer and fewer persons (as income earners) support more and more persons (in forced retirement). The Committee therefore passed the following resolution:

Resolution

Whereas continuing employment in some form after age 65 is preferable to automatic retirement from the economic viewpoint, from tax considerations, and from the mental and general health viewpoints;

RESOLVED: That the Committee on Problems of the Aging recommend to the Texas Medical Association the general advocacy, at some future date, of a reversal of the policy of automatic retirement in favor of one of continuing employment of persons over 65 years of age. Such employ-

ment should, of course, be in consideration of each individual's capacities and exclusive of controlling or executive roles (except where this is requested).

Respectfully submitted,

V. R. HURST, Chairman,
WENDELL D. GINGRICH,
HUGH P. REVELEY,
S. W. THORN,
HERBERT J. BELL,
ERNEST W. KEIL,
E. V. HEADLEE,
BEN B. HUTCHINSON,
LUTHER W. ROSS,
HENRY H. NIEHUSS,
MARTIN BUEHLER,
SPEIGHT JENKINS.

Dr. Hardwicke: We now pass to the report of the Committee on Scientific Exhibits, Dr. J. Edward Johnson, chairman. The published report is referred to the Board of Trustees as a reference committee:

REPORT OF COMMITTEE ON SCIENTIFIC EXHIBITS

The Committee on Scientific Exhibits gave to the Executive Council in January a progress report on exhibits accepted, as follows:

Completed applications accepted by the Committee	28
Incompleted applications	19
Total number exhibits in prospect	47

A comparison was made at that time with 1955 and 1956, as follows:

Fort Worth meeting (1955)	16 exhibits
Galveston meeting (1956)	38 exhibits
Dallas meeting (1957) (January)	47 exhibits

The Committee complained of inadequate coverage of the various fields of practice in exhibits submitted the past two years and still is not satisfied with the coverage represented for this year. Several fields remain unrepresented so far, and several have only one exhibit.

Since the Committee proposed the idea of making the exhibits truly representative both of medical advances achieved that need wider attention and of the work and achievements of the Texas profession, it still is not satisfied with the spread of subjects. The members have made an attempt to secure at least one exhibit from the larger fields not yet represented and asked assistance from members of the Executive Council in providing something in each of the following: pediatrics, dermatology, obstetrics, otolaryngology, and neuropsychiatry.

Promotion of Interest in the Exhibits

By outlining to prospective exhibitors the points on which exhibits will be judged for awards, it is hoped that the percentage basis for grading will guide the preparation of the displays along lines of greater educational value to the practicing physician. This achievement, if accomplished, will make the exhibits of outstanding value, and the Committee believes these extra values will be realized in large measure this year. With the general idea that the exhibits will be an outstanding feature of the annual meeting, assistance has been asked in publicizing their value and in urging as large attendance as possible. The Committee's plan to accomplish this objective follows:

1. *Journal* publicity in editorial or advertising sections prior to the date of the meeting.
2. Announcements by section officers at least once during each period of their meetings of the excellence of the exhibits on display and encouragement of audience to visit them.
3. Consideration of material from the field of each of the nine scientific sections as to adequacy of coverage and assistance of section officers in urging better coverage for next year.

The constitutional amendment for changing the Committee on Scientific Exhibits from special to standing status with outline of its formation, composition, and duties has been prepared and is being presented to the House of Delegates by the Council on Constitution and By-Laws.

The Committee is especially appreciative of the assistance and interest of the President, Dr. Rouse, in finding outstanding exhibits that otherwise might not have been secured. The Committee also wishes to express indebtedness to Dr. May Owen, chairman of the Council on Scientific Work, and to members of the Council for their encouragement and assistance in setting up revised standards for exhibits and in the reorganization plans for overlapping membership of this Committee for future service in providing exhibits for the annual sessions. Also, the Committee is gratified at the amount of space and its strategic location in the Baker Hotel in Dallas for display of the fine scientific collection that will be assembled there.

Respectfully submitted,

J. EDWARD JOHNSON, Chairman,
TRAVIS SMITH,
C. E. WILLINGHAM,
J. E. MILLER,
BYRON P. YORK,
PHIL T. WILLIAMS, JR.,
JOHN H. CHILDERS.

Dr. Hardwicke: The Committee to Study Hospital-Staff Relationships, Dr. J. Layton Cochran, chairman. [Dr. Cochran, San Antonio, presented the following report:]

REPORT OF COMMITTEE TO STUDY HOSPITAL-STAFF RELATIONSHIPS

This Committee was appointed last June by our President, Milford O. Rouse, to study the practice of medicine in Texas by hospitals through physicians in their employment; to meet with a similar committee of the Texas Hospital Association; and to attempt to reach an amicable agreement so that unpleasant litigation, as in Iowa, might be avoided.

Numerous meetings have been held and many representatives of the specialty societies concerned have been heard. Discussions are in progress at the present time. This Committee regrets it is not yet ready to make any final recommendations, but a great deal of study and serious thought need to be given to this perplexing and far-reaching problem.

In view of the favorable decisions that have already resulted in several states, it is hoped that the original purpose of this Committee may reach a favorable outcome.

Respectfully submitted,

J. LAYTON COCHRAN, Chairman,
EVERETT C. FOX,
W. S. BARCUS,
E. A. ROWLEY,
F. W. YEAGER.

Dr. Hardwicke: Dr. Cochran's preliminary report is referred to the Reference Committee on Reports of Officers

and Committees. The Committee to Study Liaison with the State Bar of Texas, Dr. John E. Skogland, Houston, chairman; they say they have no further report than is printed in the Handbook. This report is referred to the Reference Committee on Medical Service and Public Relations:

REPORT OF COMMITTEE TO STUDY LIAISON WITH STATE BAR OF TEXAS

The Committee to Study Liaison with the State Bar of Texas met twice during the year, one of these being a joint meeting with a similar committee from the State Bar of Texas. Difficulties existing in Texas in the doctor-lawyer relationship were reviewed, and suggestions were offered for improving this relationship. Even though the subject is not of importance to every doctor in Texas (for example, it is of little concern to a pediatrician, gynecologist, or anesthesiologist), it is of great importance to those who see the early or late effects of trauma (for example, the general practitioner, the orthopedist, the neurologist or neurosurgeon, the roentgenologist, and the industrial physician).

Problems which appear to engender most conflicts are these:

1. Young doctors have had no preparation for dealing with lawyers or insurance companies in the handling and trial of trauma cases. Doctors can learn this only through experience and, while learning, a certain amount of antagonism develops toward lawyers and everything else in the medicolegal field.

2. Many doctors feel there is something morally wrong about going to the courthouse. Therefore, lawyers often find it difficult to get doctors to participate in a trial; this becomes a serious issue if he is the one who has treated a patient (client). Although there are legal means for forcing a doctor to testify, lawyers prefer to have a voluntary witness.

3. Doctors tend to offer the excuse of an emergency case too often in the attempt to get out of appearing in court or otherwise cooperating with a lawyer, and this includes delaying or evading appointments made by the lawyer to consult with the doctor in his own office. Lawyers who have arranged to see a doctor in his office do not like to be kept waiting.

4. Lawyers say that they appreciate unbiased opinions and also they recognize that honest disagreement may occur among doctors. However, doctors can point out that lawyers who regularly represent either the plaintiff or the defendant might be prejudiced judges of what "unbiased opinion" and "honest disagreement" amount to.

5. Lawyers feel that doctors dread cross-examination and that this is a major reason for many wanting to avoid anything to do with the trial of trauma cases. They acknowledge they probably could improve their handling of cross-examinations so as to treat a doctor with greater dignity and respect.

6. The doctor often has difficulty collecting his fee for treating a patient once litigation is started. The doctor blames the patient or the lawyer, recognizing that a lawyer likes to emphasize to a jury later on that his client owes for medical fees in the hope that such will influence the award. The lawyer is often in a position to help the doctor collect his fee for treatment, but he is likely to do so only if the doctor has cooperated fully and testified favorably.

7. Two reasons why medical fees are high in trauma cases not covered by workmen's compensation are (a) the uncertainty of payment and (b) the fact that payment is often delayed one to two years. Lawyers stated that doctors might be added to the present hospital lien law, thus making payment of the doctor's fee more secure.

8. The question of who is responsible for a medical bill, the patient or the lawyer, is something the doctor must be alert to in most trauma cases not covered by workmen's compensation. At an early opportunity he should work this out in each case. The same applies to the doctor's fee for court testimony.

9. Lawyers complain that it is unfair for a treating doctor not to give them copies of reports sent to insurance companies. Especially with reference to workmen's compensation cases, they feel the doctor has a strong moral obligation to furnish copies of such reports because in effect he is just telling the patient (client) what is the matter with him. This point is not covered in the Texas workmen's compensation law.

10. Doctors believe that plaintiffs' lawyers coach patients (clients) and use other artifices to exaggerate invalidism until a case is finally settled.

11. Lawyers are unable to get doctors to testify in cases of alleged malpractice.

Recommendations

1. On a long range basis the Texas Medical Association should support:

a. Teaching young doctors that they are essential to the litigation process and that they should not be averse to testifying in trauma cases. This might fall within the scope of an indoctrination program.

b. Keeping available, at state or county level, a system whereby discipline may be applied against doctors who are party to any gross irregularity in this field and, most specifically, where court testimony has involved false or purposely misleading statements by a doctor.

c. Arranging joint meetings, at city or county level, so that doctors and lawyers may become more sociable and get to know each other outside the courthouse.

2. As a more immediate task the Texas Medical Association, in conjunction with the State Bar of Texas, could prepare a code setting forth principles applying to interprofessional conduct and practices. This should not be done without careful deliberation on what such a code would represent; whether a code is acceptable can be determined, basically, before it is ever written if each member of the House of Delegates will review a code now used in some other state. To this end it is proposed that:

a. A copy of the Wisconsin code, which was mailed to each member of the House of Delegates, be perused before the 1957 annual session of the Texas Medical Association, it being implied that any code adopted here would be basically similar to that one. Should there be many objections to the Wisconsin code, it would be futile for any board or committee of the Texas Medical Association or of the State Bar of Texas to spend additional time in pursuit of an interprofessional code.

b. Should the general idea of an interprofessional code be accepted, the Board of Councilors might be best qualified to prepare it and, if the By-Laws of the Texas Medical Association permit, it is suggested this responsibility be so assigned.

3. Perpetuation of a Committee to Study Liaison with the State Bar of Texas is a doubtful need unless the House of Delegates gives it additional work to carry out and indicates more clearly than heretofore what objectives the Texas Medical Association hopes to reach and maintain.

4. Whatever action is taken on these recommendations should be transmitted to the State Bar of Texas before its annual meeting in July, 1957.

Respectfully submitted,

JOHN E. SKOGLAND, Chairman,
FRED C. LOWRY,
J. E. WILLIAMS,
HAL NORGAARD,
EARL GASTON,
H. D. GILLIAM,
FRANK B. MALONE.

Dr. Hardwicke: Next is the State Committee for American Medical Education Foundation, Dr. Delaney.

Dr. A. L. Delaney, Liberty: Before I start I would like to thank the members of my committee for the work they have done and especially Dr. Sibley, who has really put in a tremendous amount of personal work. In addition to the report in the Handbook we have this supplementary report:

REPORT OF STATE COMMITTEE FOR AMERICAN MEDICAL EDUCATION FOUNDATION

No meeting of the State Committee for American Medical Education Foundation was scheduled for January, 1957, as a poll of the Committee members throughout the state showed that they preferred to meet after the chairman attended a meeting in Chicago of all state chairmen of the nation. A meeting will be called prior to the annual session to report to the State Committee on the findings and advices gained in Chicago.

During the last six months of 1956, the Committee worked diligently, and it is believed successfully, in the American Medical Education Foundation campaign. This Committee has determined two salient factors. First, there is a woeful lack of knowledge of the purpose of the American Medical Education Foundation among the doctors of Texas. Second, there has been an unprecedented response to the appeals to the doctors of the state after the purpose of the Foundation has been adequately explained to them.

Recommendations

It is recommended that the present method of disseminating information to the doctors concerning the purpose of this organization be radically changed in order to appeal to the eye and the ear as well as to the intelligence.

It is also recommended that a long term Committee for the purpose of organizing and promulgating the efforts of the American Medical Education Foundation be set up with as little change in personnel as possible from year to year. This is not an effort on the part of any member of the Committee to continue in office, but it does seem that a long term Committee can give better results than year to year changing of the Committee.

Respectfully submitted,

A. L. DELANEY, Chairman,
E. V. SWIFT,
D. J. SIBLEY,
J. M. BROWN,
THOMAS M. RUNGE,
JAMES P. ANDERSON,
V. A. BLACK,
E. H. LINDSEY,
H. O. PADGETT,
A. J. MAGLIOLO.

SUPPLEMENTARY REPORT OF STATE COMMITTEE FOR AMERICAN MEDICAL EDUCATION FOUNDATION

1. Financial Report

Correspondence from the Executive Secretary of the American Medical Education Foundation, dated April 24, 1957, shows the following: During 1956, Texas physicians contributed $20,145.44 through AMEF; however, they contributed $74,429.55 direct to their schools for a total of $94,574.99. In 1955, $20,434.75 was contributed to AMEF, but only $21,410.34 was given direct to the schools for a total of $41,845.09.

In addition to this, the Woman's Auxiliary to the Texas Medical Association raised a total of $8,767.37 to date, and it appears that their goal of $9,000 will be reached by the end of the fiscal year.

Despite the increase in contributions in this state and in others, never has the goal of the AMEF been met. This is a matter of serious concern, especially since the inflationary trend continues and from year to year the operating deficit of the medical schools becomes greater. In 1955, the deficit was $10,000,000, in 1956, $13,000,000.

2. Recommendations

The Committee, in the light of these newly received facts, would like to reemphasize the recommendations made in its report. It also recommends that the membership of the Committee be increased to include a representative from each medical school.

Respectfully submitted,

A. L. DELANEY, Chairman,
E. V. SWIFT,
D. J. SIBLEY,
J. M. BROWN,
THOMAS M. RUNGE,
JAMES P. ANDERSON,
V. A. BLACK,
E. H. LINDSEY,
H. O. PADGETT,
A. J. MAGLIOLO.

Dr. Hardwicke: The published report as well as the supplementary report is referred to the Reference Committee on Finance. We come now to the report of the Subcommittee of the Council on Medical Economics to Study Contract Medicine, Dr. S. R. Barnes, Chairman. This report is published in the Handbook, and no referral is made of it as it is merely for information:

REPORT OF SUBCOMMITTEE OF COUNCIL ON MEDICAL ECONOMICS TO STUDY CONTRACT MEDICINE

The Subcommittee of the Council on Medical Economics to Study Contract Medicine was formed and had its first meeting in conjunction with the Council on Medical Economics on April 21, 1956. At this meeting the group was specifically instructed to "make a study and draw up a resolution seeking to revise the current set of medical ethics and to present this resolution to the 1957 AMA convention." According to the Texas Medical Association's attorney, Philip Overton, these changes are already under study by the AMA and were presented at the Seattle meeting. The chairman was advised that no further action by this subcommittee was required at this time and that new instructions would be forthcoming.

A rather large file of various plans that seem to encroach on the private practice of medicine is accumulating. This file includes recent information from the Bexar County Medical Society in regard to problems in that county with civil service components. Request for study of this problem was received March 1, 1957, and no action has been taken.

Respectfully submitted,

S. R. BARNES, Chairman,
JACK B. LEE,
H. H. DUKE,
J. D. DONALDSON.

Dr. Hardwicke: Next is the report of the Appointees to State Coordinating Council on Tuberculosis. It is published in the Handbook and is for information only; no referral is made of this report:

REPORT OF APPOINTEES TO STATE COORDINATING COUNCIL ON TUBERCULOSIS

The Appointees to the State Coordinating Council on Tuberculosis have met with the Council. This group works as a clearinghouse for information in all phases of tuberculosis control. It transmits such information to the local level through county councils that are being reactivated. The State Council is composed of representatives from all the agencies that have contact with any phase of tuberculosis control.

Respectfully submitted,

ELLIOTT MENDENHALL,
W. D. ANDERSON.

Dr. Hardwicke: The report of the Appointees to the Texas Commission on Patient Care, Dr. McVeigh:

REPORT OF APPOINTEES TO TEXAS COMMISSION ON PATIENT CARE

The report of the appointees to the Texas Commission on Patient Care is incorporated in the report of the Committee on Patient Care of the Texas Medical Association, which is printed in the handbook.

Respectfully submitted,

JOSEPH F. MCVEIGH,
G. E. BRERETON,
TRUMAN G. BLOCKER, JR.,
RUSSELL D. HOLT, JR.

Dr. Hardwicke: This, like the other report, is referred to the Board of Trustees as a reference committee.

Next is the report of the Adviser to Southwestern Chapter of Student American Medical Association. It is in the Handbook and is referred to the Reference Committee on Reports of Officers and Committees:

REPORT OF ADVISER TO SOUTHWESTERN CHAPTER OF STUDENT AMERICAN MEDICAL ASSOCIATION

The Student American Medical Association chapter at the University of Texas Southwestern Medical School has not exhibited a healthy activity status. It is the feeling of the President of the Texas Medical Association, representatives of the Dean's Office at Southwestern Medical School, and the faculty adviser to this chapter that the work is of primary importance and that every effort should be made to stimulate interest and increase the feeling of responsibility and awareness on the part of the students for the Student AMA.

The adviser and others mentioned have been aided materially by the Dean for Student and Curricular Affairs at the University of Texas Medical Branch and are at the present time working toward a strengthening of this program at Southwestern.

Certainly the accomplishments are not noteworthy, but it is felt that the work is of such importance that efforts must continue until the type of interest and participation that the students should have in the Student AMA are created. It would be a major step in preparing them for accepting their responsibilities in organized medicine upon graduation.

Respectfully submitted,

MILTON V. DAVIS.

Dr. Hardwicke: Appointees to the Advisory Committee to Texas State Board of Education, and that is Dr. Johns. This report also is more of an informative nature and no referral is made of that report:

REPORT OF APPOINTEE TO ADVISORY COMMITTEE TO TEXAS STATE BOARD OF EDUCATION

The Advisory Committee to the Texas State Board of Education met in Austin in September, 1956, and a full day of conferences and studies was experienced. Various projects were studied in an effort to secure better utilization of existing school facilities and school personnel. While the work of this Advisory Committee is not completed, it is nearing completion, and it is believed that by the fall of 1957 specific recommendations can be made to the State Board of Education.

Another meeting is contemplated in the spring, and one in the fall of 1957 is planned. It is hoped that after these meetings the Advisory Committee to the Texas State Board of Education probably will be dismissed.

Respectfully submitted,

JAY J. JOHNS.

Dr. Hardwicke: Next is Appointee to Advisory Committee to the Texas State Hospitals and Special Schools. This was distributed to you and is referred to the Reference Committee on Reports of Officers and Committees.

REPORT OF APPOINTEE TO ADVISORY COMMITTEE TO TEXAS STATE HOSPITALS AND SPECIAL SCHOOLS

During 1956 the medical representative to the Advisory Committee to the Board for Texas State Hospitals and Special Schools met with the committee five times. On each of these occasions a different topic was presented for discussion by the committee.

During the course of the year, several projects were undertaken and completed. These were as follows:

1. Investigation of problems in relation to establishment of residential treatment centers for emotionally disturbed children. The new construction under way at the Austin

State Hospital will provide facilities in the very foreseeable future.

2. Preliminary study of education for psychiatric aid.

3. Establishment of periodic visitations by representatives of the Texas Neuropsychiatric Association and the Texas Academy of General Practice to the various mental hospitals.

4. Study of the problems of the geriatric patient.

5. Perhaps, most important of all, serving on a consultant basis to the revision of the state Mental Health Code, which is in the process of enactment by the Legislature, having been made possible by the constitutional change doing away with the mandatory trial by jury.

Respectfully submitted,

E. IVAN BRUCE, JR.

Dr. Hardwicke: The next thing is, do we have with us the representative of any of the medical associations of our neighboring states? (None present.)

I am advised that the report of the Committee on Industrial Health as printed in the Handbook is the only report. This report is referred to the Reference Committee on Medical Service and Public Relations:

REPORT OF COMMITTEE ON INDUSTRIAL HEALTH

The Committee on Industrial Health met in Austin September 8, 1956, and reviewed the report made to the Executive Council by the original Committee, which met on September 10, 1955. The report was approved.

The Committee also reviewed Chapter VIII, Section 18 (b-8) of the Constitution and By-Laws of the Texas Medical Association, which describes the organization and duties of the Committee on Industrial Health. The Committee endorsed it as it now stands.

The chairman reported the activities of this Committee to the Council on Industrial Health of the American Medical Association at its January, 1957, meeting in Los Angeles.

County medical societies have been requested to appoint committees on industrial health, to function as means of communication in matters related to this subject, as well as to handle actual problems when these exist.

The following subcommittees were appointed: Dr. Ralph G. Greenlee, chairman, Subcommittee on Public Service; Dr. V. M. Payne, Jr., chairman, Subcommittee on Scientific Development; Dr. Carl A. Nau, chairman, Subcommittee on Medical Education; and Dr. S. W. Bradford, chairman, Subcommittee on Interprofessional Relations.

It was decided that the next meeting would be held immediately prior to the next Texas Medical Association annual session, in Dallas, in April.

Respectfully submitted,

V. C. BAIRD, Chairman,
G. B. STEPHENSON,
R. H. THOMASON,
ROBERT J. POTTS,
MAX E. JOHNSON,
V. M. PAYNE, JR.,
RALPH G. GREENLEE,
CARL A. NAU,
S. W. BRADFORD,
N. B. DANIEL.

Dr. Hardwicke: The Handbook also contains the report of the Medical Advisory Committee to Texas Society for Crippled Children, which is referred to the Reference Committee on Reports of Officers and Committees, and the reports of the representatives to Louisiana State Medical Society and to New Mexico Medical Society, which are for information only:

REPORT OF MEDICAL ADVISORY COMMITTEE TO TEXAS SOCIETY FOR CRIPPLED CHILDREN

Individual members of the Medical Advisory Committee to the Texas Society for Crippled Children have been called on from time to time by the society with problems in their areas. Members have responded quite well, and the cooperation between the Committee and the society has been excellent. The Texas Society for Crippled Children has expressed itself as being happy with the workings of this Committee and desires that the present working arrangement be continued.

Respectfully submitted,

J. J. HINCHEY, Chairman,
MARGARET WATKINS,
HERBERT E. HIPPS,
MACK F. BOWYER.

REPORT OF REPRESENTATIVE TO LOUISIANA STATE MEDICAL SOCIETY

The representative to Louisiana State Medical Society wishes to report that he is to appear on the program of the Louisiana State Medical Society on May 6 to bring greetings from the Texas Medical Association as the fraternal delegate.

Respectfully submitted,

W. B. NORMAN.

REPORT OF REPRESENTATIVE TO NEW MEXICO MEDICAL SOCIETY

At the request of the President, the representative to the New Mexico Medical Society will attend its meeting on May 15, 16, and 17, 1957, in Santa Fe as a special delegate from the Texas Medical Association. Since this meeting will be held after the annual session of the Texas Medical Association, it will not be possible to furnish an additional report to the House of Delegates.

Respectfully submitted,

JAMES J. GORMAN.

Dr. Deaton (resuming the Chair): Thank you, Dr. Hardwicke. The next item of business is the reading of communications. We have no communications. Then memorials and resolutions are in order. I believe Dr. Heare is the first one I see. Dr. L. C. Heare of Port Arthur.

RESOLUTIONS

Dr. Heare: I have a resolution which would affect the Constitution and also one complementary to it which would affect the By-Laws. I will not bring out the arguments in favor of these since they have to lay over for another year. The members of the House of Delegates will have ample time to study and consider the resolutions:

Amendment: Sectional Delegates

RESOLVED: That we amend the Constitution of the Texas Medical Association by amending Article VII, Section 1, so that the same shall hereinafter read as follows:

"Section 1. The House of Delegates shall constitute the legislative body of the Association. The membership of the House of Delegates shall consist of (1) Delegates, elected in accordance with this Constitution and By-Laws, and ex officio (2) the President, the President-Elect, the Vice-President, the Secretary, and the Treasurer; (3) Councilors, (4) Trustees; (5) the Speaker of the House of Delegates; (6) Vice-Speaker of the House of Delegates; (7) Texas delegates and alternate delegates to the American Medical Association; (8) the Chairman of the Committee on Public Relations; (9) the members of the Council on Medical Jurisprudence and the several chairmen of the other respective councils; and (10) a Sectional Delegate from each of the following Scientific Sections: (a) Section on General Practice, (b) Section on Internal Medicine, (c) Section on Surgery, (d) Section on Obstetrics and Gynecology, (e) Section on Eye, Ear, Nose, and Throat, (f) Section on Radiology, (g) Section on Public Health, (h) Section on Clinical Pathology, (i) Section on Pediatrics."

RESOLVED: That we amend the By-Laws of the Texas Medical Association by amending Chapter IX, Section 3, so that the same shall hereinafter read as follows:

"Section 3. The President-Elect shall appoint a secretary for each section, who shall serve for a period of one year, and then shall automatically become chairman of the section to serve for a period of one year. It shall be the duty of said chairman and secretary, in consultation with the Council on Scientific Work, to prepare programs for their respective sections for the next annual session following their appointment. Their term of office shall conclude with the adjournment of the annual session for which their respective programs are compiled. It shall also be the duty of the members of each respective section to elect from its members a delegate to serve in the House of Delegates."

Dr. Deaton: These will be referred to the Reference Committee on Constitution and By-Laws. Are there other resolutions?

Dr. Ralph E. Gray, Lake Jackson: I have a short resolution which I desire to read at this time:

Resolution: Federal Subsidy of Medical Education

Whereas, federal subsidy for medical school construction and expansion would lead inevitably to federal control (Supreme Court Ruling, 1942: "It's hardly lack of due process for the government to regulate that which it subsidizes." 317 US 131, Wickard vs. Filburn, 1942); and

Whereas, the American Medical Association has consistently held the opinion that federal aid is a "dangerous device because of the degree of regulation which must necessarily accompany federal subsidies"; and

Whereas, past experience has shown that the stipulations of a "temporary emergency" and a "single grant" offer no protection against perpetuation; and

Whereas, the House of Delegates of the Texas Medical Association in June, 1956, has expressed its opposition to federal aid to medical education; therefore be it

RESOLVED: That the House of Delegates of the Texas Medical Association, in regular session assembled this April 28th, 1957, reaffirms its previous action taken in opposing the principles of federal subsidies, either direct or indirect, for medical school construction, expansion, or for any other purpose; be it further

RESOLVED: That the delegates to the American Medical Association be instructed to introduce this resolution to the House of Delegates of the American Medical Association at the June, 1957, meeting in New York and exert every effort to secure its adoption.

Dr. Deaton: This is referred to the Reference Committee on Resolutions and Memorials.

Dr. Sam N. Key, Jr., Austin: I am sure that the members of the House of Delegates will recollect there have been numerous references this evening to the fact that there are paramedical groups or ancillary or splinter medical groups who have interests which are upon the same points and facts as the physicians of Texas. Recently in my county medical society there occurred not one but several instances of this sort which, to say the least, caused confusion, and we feel that that confusion was not confined to our medical society but existed elsewhere throughout the state. This is a resolution as adopted by the Travis County Medical Society:

Resolution: Committee on Public Policy

Whereas, a program of mass immunization has been foisted on medical societies of Texas with confusion and embarrassment to societies resulting from various high pressure methods and possible misrepresentations; and

Whereas, a backlog of projects is developing which will, through publicity, be initiated in a manner to bring discredit to societies which do not cooperate to the fullest extent with these organizations which have allied themselves with various fields of Medicine under the philosophy that no harm can come from "do good" efforts; and

Whereas, time has shown that mass programs are sometimes indulged in to capitalize on the fear instinct of humanity without regard to hazards to the individual patient or the whole concept of good medical care; and

Whereas, the ultimate and complete success of any program of immunization, diagnosis, or therapeusis is dependent in the final analysis upon understanding (not fear) by the public and upon its continuity and extension by medical practitioners; now therefore be it

RESOLVED: That the delegates of the Travis County Medical Society request that the House of Delegates of the Texas Medical Association establish a Committee on Public Policy whose functions shall be to devise methods to:

1. Protect the interest of the patient by insuring that any project will be integrated as a part of the regular service and care for patients in the normal medical environment.
2. Protect the indigent by making certain that services will be freely available to them.
3. Devise methods whereby hardship cases not frankly indigent can receive aid without violating normal physician-patient relationship.
4. Protect the honor, dignity, and integrity of medicine by insuring that programs will be conducted by physicians in their offices or in normally constituted hospitals or clinics.
5. Protect organized medicine by devising a method which permits submission of projects by the Public Policy Committee to local societies and provides for adequate opportunity for expression to be made by component societies and considered by the committee before enunciation of a policy which will serve as a guide for component societies.
6. Protect the physician by insuring that every detail of any program proposed by a voluntary agency shall be submitted and approved by the Texas Medical Association with clear understanding that cooperation will be suspended or withheld on any violation of said agreement by the voluntary agency or failure to submit proposed plans.

It is recommended that this committee be made a special committee.

Dr. Deaton: The resolution is referred to the Reference Committee on Medical Service and Public Relations.

Dr. Joe D. Nichols, Atlanta: I have a resolution which has to do with the chemical food additives:

Resolution: Chemical Food Additives

Whereas, under present laws chemical food additives are being used which have definitely been proven to be carcinogenic; and

Whereas, Congressman Delaney of New York has introduced a new food and drug bill in the present Congress; and

Whereas, the Cass-Marion Counties Medical Society has endorsed a resolution favoring an amendment to this or any other food and drug bill which will insert a provision specifically stating that any substance found to induce cancer shall not be approved for use in or on food; be it

RESOLVED: That this resolution be adopted by the Texas Medical Association; be it further

RESOLVED: That the delegates from the Texas Medical Association introduce this resolution at the American Medical Association convention and work for its adoption.

Dr. Deaton: This resolution is referred to the Reference Committee on Resolutions and Memorials. The Chair will recognize Dr. Scales.

Dr. Hunter L. Scales, Jr., San Benito: We have this resolution concerning automobile safety:

Resolution: Automobile Safety

Whereas, about 1,390,000 people were injured in this country in automobile accidents during 1955, and 38,000 of them fatally; and

Whereas, safety experts and some automobile makers have had but little success in convincing the public that there should be more built-in safety in automobiles; and

Whereas, seat belts materially reduce incidence and severity of injuries to automobile passengers when used; now therefore be it

RESOLVED: That this society urge all its members to study the safety experts' proposals for safer designs of automobiles and to consider such proposals when choosing automobiles for their own or their families' use and to spread such knowledge among the people, so they, too, will insist on safely designed cars rather than on flashy looking ones; and be it further

RESOLVED: That this society recommend to all its members that they install seat belts in their automobiles and use them, and that they influence the public to do likewise; and be it further

RESOLVED: That this society urge the State of Texas and its political subdivisions to join some other states (such as Arizona) in installing seat belts in all official automobiles and to instruct the users of such cars to use such seat belts when driving or riding in such automobiles; and be it further

RESOLVED: That this society propose that the House of Delegates of the Texas Medical Association adopt a resolution similar to the present one and inform the people and the government of Texas of such action.

Dr. Deaton: This resolution is referred to the Reference Committee on Medical Service and Public Relations. The Chair will recognize Dr. Carlson.

Dr. Glenn D. Carlson, Dallas: This is a resolution from President Milford O. Rouse concerning the General Practitioner of the Year:

Resolution: General Practitioner of Year

Whereas, it is highly in order to conserve the time of the House of Delegates in every way possible; and

Whereas, the attributes of a nominee for General Practitioner of the Year can be conveyed to the members of the House in mimeographed or typed form, furnished to all members of the House prior to the election, just as effectively as by several speeches of friends; therefore be it

RESOLVED: That proposals and biographies of all nominees for General Practitioner of the Year shall be typed and furnished to each member of the House prior to the time of the election by the House. Consequently, when the chairman of the Board of Councilors reports the nominations for General Practitioner to the House, the election shall be held immediately with no further nomination or discussion.

Dr. Deaton: This resolution will be referred to the Reference Committee on Reports of Officers and Committees.

Dr. George Turner, El Paso: I have a resolution to offer to the delegates at this time:

Resolution: Medical Technologists

Whereas, the field of medical technology is composed of highly trained and skilled workers who are competent to discharge their duties as part of the medical team; and

Whereas, other members of the medical team, such as nurses, physical therapists, and dietitians, are afforded professional status; and

Whereas, there has been an elevation of the minimum standards for the Registry of Medical Technologists to a collegiate level similar to other professional personnel recognized as part of the medical team; and

Whereas, Medical Technologists (M.T.—ASCP) deserve this same professional recognition; therefore be it

RESOLVED: That Medical Technologists (M.T.—ASCP) be recognized as members of a profession and this affirmation of professional status by the ASCP and CAP be sent to the chairman of the Civil Service Commission to call his attention to the professional status of medical technologists as recognized by pathologists.

Dr. Deaton: This resolution is referred to the Reference Committee on Scientific Work.

Dr. Homer E. Prince, Houston: This resolution has to do with opposing Medicare:

Resolution: Medicare

Whereas, members of the Texas Medical Association believe Medicare (Public Law 569) to be socialized medicine exemplified in a vast program for providing medical care to military dependents sponsored by, paid for, and unmistakably controlled by the federal government with a fee schedule negotiated by the Board of Trustees of the Texas Medical Association with the Department of Defense; and

Whereas, members of the Texas Medical Association recognize that Medicare violates the long established and very successful custom of the free choice of physician inasmuch as many doctors refuse to participate in the Medicare program; and

Whereas, a more economical and more practical method of caring for the military dependents would be to raise the monthly income of the military personnel and allow them to pay for their own medical care or carry hospital and sickness insurance to do the same; and

Whereas, we believe that military dependents should not be regarded as wards of the government but considered as private patients to whom complete medical care should be rendered; and

Whereas, we believe that government controlled medical care inevitably brings about a deterioration of medical services to the detriment of both the patient and doctor; therefore be it

RESOLVED: That the Texas Medical Association strongly urge each member to consider carefully whether or not he or she will participate in the Medicare program; and be it further

RESOLVED: That the House of Delegates of the Texas Medical Association oppose the renewal of the Medicare contract.

Dr. Deaton: This resolution is referred to the Board of Trustees as a reference committee.

Dr. Thomas J. Vanzant, Houston: I have two resolutions, the first one pertaining to the school program for detection of eye defects and the other with a certifying board for ophthalmic technicians:

Resolution: School Program on Eye Defects

Whereas, the medical profession is traditionally interested in public health and preventive medicine; and

Whereas, the Texas Ophthalmological Association has studied various procedures used in different states for the detection of eye defects in school children and has assembled a composite program, adaptable to the needs of the State of Texas; and

Whereas, this program as proposed by the Texas Ophthalmological Association has been studied and approved by the Committee on School-Physician Relationships of the Texas Medical Association; be it

RESOLVED: That the House of Delegates of the Texas Medical Association approve the program for detection of eye defects in school children and join with the Texas Ophthalmological Association in recommending to the State Department of Health that this program be adopted by the Department of Health, as a standard guide to all school systems of the state.

Resolution: Certifying Board for Ophthalmic Technicians

Whereas, all ophthalmologists utilize the services of lay technicians for orthoptic exercises, dispensing of glasses and contact lenses, and fitting of prostheses, etcetera, either directly or indirectly; and

Whereas, it is vital that these technicians be properly trained and qualified for their respective function; and

Whereas, a Board of Ophthalmologists should be established to set standards of training, to examine for proficiency, and to certify qualified technicians in the respective fields; and

Whereas, the Board should be a joint Board with representatives from the Texas Medical Association, the Texas Ophthalmological Association, and the Texas Society of Ophthalmology and Otolaryngology to obtain the best distribution of responsibility; be it

RESOLVED: That the Texas Medical Association cooperate with the Texas Ophthalmological Association and Texas Society of Ophthalmology and Otolaryngology in the formation of a Board for certification of Ophthalmic Technicians and that the President be authorized to appoint four ophthalmologists to represent the Texas Medical Association, who will serve jointly with a like number of appointees of the other two societies in the establishment of the Board, and that these four men serve terms of 1, 2, 3, and 4 years respectively, and each year hereafter appointments be made for terms of 4 years.

Dr. Deaton: The first resolution is referred to the Reference Committee on Medical Service and Public Relations. I will refer this second one to the Reference Committee on Resolutions and Memorials.

Dr. Thomas Royce, Houston: I have been authorized by the Harris County Medical Society to offer this resolution:

Resolution: Twenty-Third Amendment

Whereas, the United States is the product of the people's faith in constitutional law designed to protect the liberty and property of each citizen; and

Whereas, attacks upon this principle of government have produced many governmental agencies which are now in active competition with the individual enterprises of the American people; and

Whereas, such government enterprises are financed by funds taken by force from the people with whom they compete; and

Whereas, such federal corporations operating on a cost-free, rent-free, tax-free basis exceeded their earned income by more than five billion dollars in each year for the past six years and losses are increasing every year; and

Whereas, the combination of losses and hidden costs are estimated to aggregate considerably more than one-third of the annual federal budget; and

Whereas, many proposals now before Congress will, if adopted by a mere majority, further jeopardize the rights of the American people to their individual property and enterprises; and

Whereas, the intent of the fifth article of the Constitution was to provide a means for the proper delegation of powers to government through a procedure which requires a two-thirds majority of both houses of Congress and the approval of three-fourths of the states; therefore be it

RESOLVED: That the Texas Medical Association House of Delegates in regular session assembled this 28th day of April, 1957, exercise its constitutional right in urging Congress to submit to the people of the various states an amendment to the Constitution providing that the government of the United States shall not engage in any business, professional, commercial, or industrial enterprise in competition with its citizens except as specified in the Constitution; and be it further

RESOLVED: That copies of this resolution be sent to the President of the United States, Senators Lyndon Johnson and Ralph Yarborough, Representatives of the State of Texas in the House, and to Governor Price Daniel of the State of Texas; and be it further

RESOLVED: That the Texas Medical Association Delegates to the American Medical Association be instructed to introduce this resolution at the House of Delegates meeting of the American Medical Association, June, 1957.

Dr. Deaton: This resolution is referred to the Reference Committee on Resolutions and Memorials.

Dr. George M. Jones, Dallas: I am presenting a resolution, introduced for the Dallas County Medical Society, regarding the indoctrination program:

Amendment: Indoctrination Program

Whereas, the President in his message has recommended a modification of requirements for attendance at indoctrination programs sponsored by the Association; therefore be it

RESOLVED: That Chapter X, Section 4, of the By-Laws be amended by adding the following three paragraphs at the end of Section 4:

1. If a physician has been a member in good standing of the Texas Medical Association for as much as five years, he could be invited but not required to attend an indoctrination program given under the auspices of the Committee on Indoctrination of the Texas Medical Association.

2. A provisional member who attends a comprehensive indoctrination program conducted by a county medical society which is approved by the Committee on Indoctrination of the Texas Medical Association shall be considered to

have fulfilled the requirement of attending indoctrination programs of the Texas Medical Association.

3. Qualifying indoctrination programs shall be offered at the time of the annual session of the Texas Medical Association.

Dr. Deaton: This resolution is referred to the Reference Committee on Constitution and By-Laws.

[Dr. John K. Glen, Houston, then presented a resolution:]

Resolution: Repeal of Sixteenth Amendment

BE IT RESOLVED: That the Texas Medical Association go on record as supporting the Hoffman Amendment, H. J. R. 232, to the federal Constitution, which would repeal the sixteenth amendment to that Constitution; and be it further

RESOLVED: That the delegates to the American Medical Association from the Texas Medical Association initiate similar action in the House of Delegates of the American Medical Association in June, 1957.

Dr. Deaton: This resolution is referred to the Reference Committee on Resolutions and Memorials.

[Dr. Robert D. Moreton, Fort Worth, presented the following:]

Resolution: Jenkins-Keogh Bill

BE IT RESOLVED: In the interest of fairness and equality to the self-employed individual, that the Texas Medical Association House of Delegates endorses the principle of the Jenkins-Keogh bill; and be it further

RESOLVED: That a copy of this resolution be spread upon the minutes of this meeting and that copies be sent to Senators Lyndon Johnson and Ralph Yarborough, to representatives of the State of Texas in the House, and to all members of the Ways and Means Committee of the House of Representatives; and be it further

RESOLVED: That the Texas Medical Association delegates to the American Medical Association be instructed to introduce this resolution at the House of Delegates meeting of the American Medical Association, June, 1957.

Dr. Deaton: This resolution is referred to the Reference Committee on Resolutions and Memorials.

Dr. W. H. Hamrick, Houston: I have this resolution concerning non-service-connected cases in Veterans Administration hospitals:

Resolution: Veterans Administration Hospitals

Whereas, a majority of the beds in Veterans Administration hospitals in Texas are being occupied for the care of non-service-connected cases; and

Whereas, it is well established that many of the non-service-connected cases are not indigent but are able to pay for medical and hospital care in non-tax-supported volunteer hospitals; and

Whereas, the Veterans Administration is collecting surgical fees much in excess of the per diem payments to its part-time visiting and consulting staff; and

Whereas, such exploiting of professional services by a non-professional or lay organization is ultimately to the detriment of the deserving veteran and will result in deterioration of medical care; and

Whereas, such practice of exploitation of professional services by lay organizations has been ruled illegal in Texas and against the public interest; now therefore be it

RESOLVED: That the House of Delegates of Texas Medical Association in annual session assembled April 28, 1957, hereby authorize and require its Board of Trustees to cause to be filed in a proper court in Texas a suit of injunction against the Veterans Administration hospitals in Texas, which suit shall seek to require these Veterans Administration hospitals to cease and desist in the corporate practice of medicine; and be it further

RESOLVED: That the Board of Trustees is hereby authorized to expend up to one-half of the present Medical Defense Fund of this Association in prosecution of this suit.

Dr. Deaton: This resolution is referred to the Board of Trustees as a reference committee.

Dr. Drue Ware, Fort Worth: This is a resolution supporting S. J. Resolution 3 and H. J. Resolution 264 (Bricker Amendment):

Resolution: Bricker Amendment

Whereas, the United States has entered into more than 10,000 executive agreements with foreign nations in the last fifteen years; and

Whereas, hundreds of treaties have been rushed through the Senate with only a few people knowing what they were really about; and

Whereas, the U. S. Constitution is different from those of other countries in that a treaty overrides our federal Constitution and all state laws, thus becoming the internal law of the land affecting every citizen; and

Whereas, American soldiers are now subject to the laws of the countries in which they serve in many instances and have been denied the guarantees of the U. S. Constitution, such as trial by jury, due to the Status of Forces Treaty; and

Whereas, recent treaties proposed by various international organizations, i. e., the International Labor Organization, the World Health Organization, and UNESCO, would establish universal socialized medicine; and

Whereas, numerous other treaties proposed by various international organizations would seriously jeopardize the freedom of the citizens of the United States; therefore be it

RESOLVED: That the Texas Medical Association House of Delegates firmly endorses S. J. Resolution 3, Eighty-Fifth Congress, as introduced by Senator John Bricker, and H. J. Resolution 264, as introduced by Rep. Bruce Alger; and be it further

RESOLVED: That copies of this resolution be sent to Senators Lyndon Johnson and Ralph Yarborough and to all members of the House and Senate Judiciary Committees and Representatives from the State of Texas; and be it further

RESOLVED: That the Texas Medical Association delegates to the American Medical Association be instructed to introduce this resolution at the House of Delegates meeting of the American Medical Association, June, 1957.

Dr. Deaton: This resolution is referred to the Reference Committee on Resolutions and Memorials.

Dr. David W. Carter, Jr., Dallas: The Dallas County Medical Society wishes to introduce this resolution:

Resolution: Interprofessional Relations Code

Whereas, the report of the Committee to Study Liaison with the State Bar of Texas has made certain recommendations with regards to adopting a code similar to the Wisconsin code which is to be known as an Interprofessional Relations Code; and

Whereas, the need for such a code is evident; be it therefore

RESOLVED:

1. That the committee be instructed to prepare a guide to establish close cooperation between physicians and lawyers which will serve as a basic outline for county medical

societies and local bar associations to follow in developing their program locally;

2. That the Committee on Liaison with the State Bar of Texas be perpetuated and that it be reclassified as a standing committee;

3. That the Committee on Liaison with the State Bar of Texas be further requested to continue its studies pertaining to the means and methods by which better liaison and more ethical standards of procedures can be developed on a preventive basis.

Dr. Deaton: This resolution will be referred to the Reference Committee on Medical Service and Public Relations.

Next is the item of unfinished business—is there any unfinished business? Any new business? Gentlemen, that is as far as we can proceed tonight. I want to ask the chairmen of all reference committees to come to the table after the meeting and get your reports that have been assigned to the several reference committees; please return these reports to the central office staff when you have recommended action on them. Do I have a motion to adjourn? [Thereupon motion was made, seconded, and carried to adjourn, and the meeting was adjourned at 11:45 p. m.]

Sunday, April 28, 1957

MEMORIAL SERVICES

[The Texas Medical Association and the Woman's Auxiliary to the Texas Medical Association joined in memorial services at 4:30 p. m., Sunday, April 28, 1957, in the Junior Ballroom of the Statler Hilton Hotel, Dallas. Dr. George W. Waldron, Houston, chairman of the Committee on Memorial Services, presided.]

[Following the organ prelude by Mrs. Doris Watson, Dallas, the Rev. William A. Holmes, associate pastor of Highland Park Methodist Church, Dallas, offered the invocation. Mrs. Nellene Coffee, Dallas, then presented a violin solo.]

[The memorial address for deceased physicians then was delivered by Dr. Waldron as follows:]

Memorial Address for Deceased Physicians

Each year at this time we gather in tribute to the memory of recently deceased Texas physicians. It is a sad meeting but a proud one, for all of us are extremely proud of the accomplishments of these doctors in their many communities spread across the greatest state in the nation. Some have worked in isolated places with little equipment and inadequate assistance. Others have spent their professional lives in populous areas where great hospitals, with all the latest and finest equipment, are available for diagnosis, treatment, and research in all phases of medicine.

It is not for us to attempt to evaluate the work or worth of our departed fellow physicians. Rather, it is for us to cherish the memory of each for whatever he or she contributed to the welfare of the community, whether that encompassed only a tiny countryside, the whole state, or the entire nation.

In some areas, we might find that a departed colleague had been the best educated person in his village and perhaps the most articulate. At a young age he had participated in many community affairs. As he matured, his judgment and wisdom helped solve most civic problems from day to day and from year to year. Everyone knew him and almost everyone loved him, but because of his startling decisiveness there were always those who shunned the wise pronouncements of his agile mind. The services he was called upon to perform were spread as widely as the far off boundaries of Texas. He was a part of everyone's family and a confidential adviser to all who sought him out. If any family in his community suffered, it was perhaps his own through seeing so little of him. He could provide everything for his own folks except his time. Such is the practice of medicine to which these loved ones were dedicated. Most of them were fairly prosperous, at least according to local standards, but I dare say few, if any, entered the profession with great monetary gain in mind. Each felt a deep desire to prevent illness, to heal the sick, to repair the injured, and to comfort the doomed. Most thoughts regarding financial security were in reference to family needs and obligations.

The concentration of facilities in our large cities brought men with outstanding training, experience, and skill. Out of the great medical institutions in Texas has come knowledge derived from research and clinical practice that has affected all people in all states and all nations. Our departed friends who worked in these centers lead completely different but no less devoted lives in reference to the prevention and cure of disease than did our more rural brothers. They also were dedicated and often poorly paid.

We may say of our departed that there were famous men among them and obscure men among them, but all were great. Each had a close acquaintance with death and also the beginning of life. Each knew that these mysterious processes were not too far apart. Each knew God in his own way and well understood the inadequacies of man. Each had a strong abiding faith, it matters not by what name you call it. Each left a frightening void on earth as he journeyed to his reward in the Great Beyond.

Recently, a famous American surgeon wrote: "The good Lord gives specific gifts to each and every person at birth. We would learn that this is also true of every other living thing if only we had an intelligent interpreter for each form of life. Such gifts signify that there is a purpose for the existence of living things. There is also a purpose for the existence of inanimate or material things, for without them, there could be no life."* Our late colleagues were especially endowed with such "specific gifts" and unselfishly employed them for the good of mankind. In addition they made amazing use of "inanimate or material things."

And so, my friends, today we remember our departed loved ones at this special service with the comforting thought that not one among them left us without making some part of this world a healthier and happier place in which to live.

[Mrs. John H. Wootters, Houston, chairman of the Committee on Memorial Services of the Woman's Auxiliary, presented the memorial address for deceased wives of physicians. Her tribute will appear as a part of the transactions of the Auxiliary.]

[After a vocal solo by Mrs. Dodie Griffith, Dallas, the Rev. Mr. Holmes closed the services with a benediction.]

[Those attending the services were given a printed program bearing the names of the persons being honored. The names of wives of physicians who were paid tribute will be listed with the Auxiliary transactions; physicians honored were as follows:]

Deceased Members of Texas Medical Association, 1956-1957

Andrews, Dr. Bolivar C., Dallas.
Atkinson, Dr. Curtis (Hon.), Wichita Falls.
Barnett, Dr. Thomas R., Hillsboro.
Beal, Dr. Albert R. (Inact.), Graham.

Mayo, C. W.: Not for Ourselves Alone, Am. Surg. 22: 1233 (Dec.) 1956.

Beall, Dr. Frank C. (Hon.), Fort Worth.
Bennett, Dr. W. H., Marshall.
Bing, Dr. Roland E., Oakwood.
Black, Dr. Dennis W. (Hon.), Lampasas.
Boone, Dr. Malcolm A., Dallas.
Boso, Dr. Fred M., San Antonio.
Boyd, Dr. James E., Hillsboro.
Carter, Dr. Charles F., Gilmer.
Casto, Dr. James Frederick, New Braunfels.
Collins, Dr. Bailey R., Wichita Falls.
Copeland, Dr. Floyd R., Dallas.
Cox, Dr. Walter E. (Hon.), Brownsville.
Cyrus, Dr. Elbert M., Jr., Fort Worth.
Denson, Dr. Thomas L., Cameron.
Dorman, Dr. J. H., Dallas.
Duggan, Dr. LeRoy B., Houston.
Fetzer, Dr. Lewis W., Dallas.
Flynn, Dr. James G., Houston.
Fowler, Dr. W. W. (Hon.), Dallas.
Foy, Dr. James W., Seymour.
Franklow, Dr. Charles D., Dallas.
Goggans, Dr. Roy (Hon.), Dallas.
Graves, Dr. Amos M., San Antonio.
Guerra, Dr. Raul Lopez, Fort Worth.
Haden, Dr. Henry C. (Hon.), Houston.
Hale, Dr. Douglas M., Cold Springs.
Hamilton, Dr. J. H. (Hon.), Gatesville.
Hamme, Dr. Curtis J. (Hon.), Edinburg.
Hanna, Dr. John J. (Hon.), Glen Rose.
Hataway, Dr. Garrett A., Longview.
Hearne, Dr. C. A. (Hon.), Corpus Christi.
Hill, Dr. James A. (Hon.), Houston.
Hodges, Dr. J. Edward (Hon.), Houston.
Hoeflich, Dr. C. W. (Hon.), Houston.
Hooker, Dr. Lynn C., Carthage.
Hughes, Dr. Fred M., Houston.
Hull, Dr. Austin O. (Inact.), San Antonio.
Jablow, Dr. Harry B., Dallas.
Jamieson, Dr. W. R. (Hon.), El Paso.
Kennedy, Dr. E. J. (Inact.), Houston.
Key, Dr. Sam N. (Hon.), Austin.
Keys, Dr. Richard, Amarillo.
Kimbrough, Dr. Ernest M., Haskell.
Kroulik, Dr. Frank J. (Hon.), Smithville.
Laws, Dr. James W. (Hon.), El Paso.
Levin, Dr. Samuel O., Denison.
Lillie, Dr. Gordon A., Baytown.
Littell, Dr. George S., Dallas.
Little, Dr. Otis W., Abilene.
Maresh, Dr. Henry R., Houston.
Mangum, Dr. Carl E., Wichita Falls.
McCallum, Dr. Charles (Hon.), Mesquite.
McCamant, Dr. Thomas J. (Hon.), El Paso.
McConnell, Dr. T. H., Jr., Sulphur Springs.
McKnight, Dr. W. B. (Hon.), Mansfield.
McLeod, Dr. Robert H. (Hon.), Palestine.
Miller, Dr. Felix P. (Emer.), El Paso.
Molloy, Dr. James P. (Inact.), Houston.
Montague, Dr. Lawrence J. (Hon.), Edinburg.
Moss, Dr. E. B., Junction.
Murphy, Dr. Clarence S., Livingston.
Murray, Dr. James A. (Hon.), Walnut Springs.
Nevarez, Dr. Miguel A., McAllen.
Park, Dr. James H., Houston.
Parker, Dr. William S. (Hon.), Calvert.
Paschal, Dr. George H., San Antonio.
Pierce, Dr. Paul L., Denison.
Porter, Dr. John T., Baytown.
Powell, Dr. George F. (Hon.), Terrell.
Richardson, Dr. A. J. (Hon.), Jasper.
Rogers, Dr. Will P. (Hon.), El Paso.
Roosth, Dr. Harold, Tyler.
Rumph, Dr. D. M., Fort Worth.
Russell, Dr. Dan A., San Antonio.
Sample, Dr. Roy O., San Antonio.
Sanders, Dr. O. Perdue, Dallas.
Sanders, Dr. William S., Jasper.
Shields, Dr. Allan C., Victoria.
Sims, Dr. Foster D. (Hon.), Waco.
Somer, Dr. Frank A., Ennis.
Stanford, Dr. Henry, Galveston.
Stennis, Dr. Hugh J., Abilene.
Stephens, Dr. John Arch, Paris.
Stevens, Dr. Thomas H., Sulphur Springs.
Stout, Dr. B. F. (Hon.), San Antonio.
Sypert, Dr. J. R. (Hon.), Dallas.
Thornton, Dr. Charles W. (Hon.), Dallas.
Turner, Dr. Steve F., El Paso.
Vaughan, Dr. E. W. (Hon.), Port Arthur.
Venable, Dr. J. Manning, San Antonio.
Vinsant, Dr. William J. (Hon.), San Benito.
Walborn, Dr. Kenneth B., Fort Worth.
Ward, Dr. James W. (Hon.), Greenville.
Warren, Dr. Walter M., Center.
Webb, Dr. William S., Fort Worth.
Welch, Dr. John G. (Hon.), Port Neches.
Winfield, Dr. C. F., Alice.
Witt, Dr. Guy F., Dallas.
Woodward, Dr. M. Lee (Hon.), San Angelo.
Wrather, Dr. James R. (Hon.), Amarillo.

Deceased Texas Physicians, Not Members of Texas Medical Association, 1956-1957

Alexander, Dr. Joseph H., Zavalla.
Amidon, Dr. Charles S., Harlingen.
Batchelor, Dr. Claude, Teague.
Bredehoft, Dr. Julius C., Boerne.
Broaddus, Dr. John A., Latham, N. Y. (formerly Snyder).
Burt, Dr. Fred, Junction.
Cagle, Dr. Thomas J., Crosbyton.
Cansler, Dr. Hurman K., Temple.
Close, Dr. John B., Mission.
Collier, Dr. Joel I., Navasota.
Collins, Dr. James A., Gordonville.
Combs, Dr. H. B., Bastrop.
Currie, Dr. Angus B., Groveton.
Davis, Dr. W. W., Nocona.
Devendorf, Dr. Louis E., San Antonio.
Dill, Dr. John R., Rising Star.
Ferris, Dr. John C., Texarkana.
Fowler, Dr. D. D., Paint Rock.
Glauner, Dr. Frederick E., San Antonio.
Hagler, Dr. M. C., New Braunfels.
Hammack, Dr. John A., Kennedale.
Hester, Dr. William L., Lubbock.
Holt, Dr. Russell D., Staunton, Va. (formerly Cranfills Gap).
Kirkham, Dr. Judd H., Kerrville.
Lacey, Dr. Robert C., Guy's Store Community, Leon County.
Lee, Dr. William P., Cisco.
Magness, Dr. James C., Honey Grove.
Maloy, Dr. Earl D., Temple.
McAlister, Dr. Finnis E., Houston.
Philips, Dr. Henry F., Dallas.
Roberson, Dr. James F., Saint Jo.
Sanders, Dr. G. C., Richards.
Schorr, Dr. Arthur M., San Antonio.
Simpson, Dr. Charles J., Whitewright.
Stone, Dr. G. W., Sherman.
Teveluwe, Dr. William A., Blanco.
Turner, Dr. Charles A., Woodson.
Vanzant, Dr. Frances R., Houston.

Sunday, April 28, 1957

MINUTES OF THE HOUSE OF DELEGATES —SECOND MEETING

[The House of Delegates reconvened Sunday, April 28, 1957, at 7:45 p. m.]

Dr. Deaton: Does the chairman of the Committee on Credentials have a report to the House?

Dr. Drue Ware, Fort Worth: We have 133 registered.

Dr. Deaton: A quorum is present and the House will now come to order. I will ask Dr. Frank Kidd to please give the invocation.

Dr. Frank Kidd, Dallas: Our gracious Heavenly Father, we thank Thee for the privilege of living in a free America where we, as representatives of the medical profession, can come together and deliberate those things which we think should be done for the betterment of man. Help us as the legislative body to have regard for the other man's opinion, but help us to vote in the way that we think is the correct way to vote. We pray Thee that in the interchange of ideas we may be better doctors in every respect. We pray divine guidance upon the officers and Trustees of this organization, and give them wisdom. We would pray the same, O Lord, for the representatives of our city, state, and national governments. All these things we pray in Jesus' name. Amen.

Dr. Deaton: We have with us Colonel Lowry of Washington, D. C. He is a member of the Defense Department and the Chair will now yield the floor to Colonel Lowry.

Address by Col. Earl Lowry: Medicare

Col. Earl Lowry: It is my purpose at this time to tell you about the Dependents Medical Care Program, of which I happen to be the assistant executive (director). As you know, General Paul I. Robinson is the executive director of this program under the Surgeon General, Department of the Army.

On June 6, when the President signed Public Law 569 into effect, some thought was given as to what agency should carry out the provisions of this law. It was late in the summer when it was finally decided this should be delegated to the office of the surgeon general of the Department of the Army. We therefore had a very hurried opportunity in which to set into operation the provisions of the law which was to become effective six months after the signature of the President or on December 7, 1956. However, on that date we were able to begin working.

As you know, Congress specifically spelled out numerous limitations in this law. Among other things it said was that the Secretary of Defense would not have authority to authorize out-patient care except in maternity service and injuries. It was with some difficulty that the full meaning of the law was disseminated to the practicing physicians of the 48 states and the four territories. However, at the present time the program is in operation with contracts with all societies except in the State of Ohio and the State of Rhode Island. In Ohio the lack of the contract is purely a technicality, and I can report that the Ohio medical association is working with us similar to other states. In Rhode Island, it is interesting to note that the percentage of physicians operating under this bill is essentially the same as if in fact they did have a contract.

Since the bill went into effect as of the twenty-fourth of April, we have paid 45,734 physicians' claims. The average cost per claim is $68.24. The total expenditures for physicians' services as of now is $3,128,820.24. For hospital services we have paid 28,108 claims at a cost of $95.60 per claim or a total of $2,687,291.67 expended.

I would like to emphasize that members of Congress in setting this program in motion considered all the plans that they might use economically to accomplish their purpose, which was to retain skilled technicians in the uniformed and military service. In this consideration, they were advised by a committee from the American Medical Association. It was the considered opinion that the plan placed in operation represented the most practical and most economical one which could be used.

It would seem that it is effecting the purpose for which the law was passed. The morbidity and complications in maternity cases has been materially aided. Approximately 40 per cent of our total effort has been spent for maternity service. Also physicians' resignations from the uniformed service has markedly decreased.

In a circular which was sent to participants in this program at the defense level, 67 per cent were returned and the dependents stated unanimously that they were highly pleased with both the physicians' service and the hospital service. I will ask you to remember again that in this program we have been able to limit the participation to persons who have a license to perform all surgery and to prescribe and administer all drugs in the respective states. This has been difficult to administer because of demands by groups who have limited licenses and other adjunctive medical licenses desiring to participate under the program.

Also I would emphasize again that 40 per cent of military dependents do not live in the vicinity of military facilities. The impact on the respective military facilities has been minimum indeed, by less than 20 per cent in any one specialty at any hospital of which I have knowledge.

I will ask you to remember also that we are trying to carry this law out in the spirit and letter of the law and that our contracts with the State of Texas and agreements are such that they may be amended at any time you have a recommendation to make and mutual agreement can be made on such changes. Freedom of choice is maintained, and the patient can elect to be treated in military facilities or civilian facilities regardless of where he is or his relationship to such facilities. We are eager that this clause shall remain. Similarly, a physician may reject any one case or accept any one case for treatment under this program without stating a reason.

I would like to express my appreciation to the chairman and to the Board of Trustees of the Texas Medical Association and to you gentlemen for this privilege. And I would like to say that of all the states in which we have had splendid cooperation and joint effort, Texas in my mind goes to the top of the list. Dr. Roy Lester and his helpers have done a superb job in our view in administering this effort for the Department of Defense in Texas. We are grateful to the Medicare Committee of your society and your society and all those who have participated in running this program in Texas.

We would regret very much to see the control of handling this program in Texas pass into other hands than that of the Texas Medical Association. We realize that there are apprehensions about certain parts of the program, but I urge you to consider as to whether or not the passing of control of this program in Texas from the State Medical Association might not do more to effect those evils than any other step you might take. Thank you very much.

Dr. Deaton: Thank you, Colonel Lowry. That brings us to the regular business of the evening. We have a lot of work to do. The Chair would like to ask that you make your speeches short and if you have had the floor refrain from attempting to speak again until everyone else has had

a chance. That is according to ordinary parliamentary usage and courtesy. Be as brief as possible. Our first item of business is the Report of the Reference Committee on Reports of Officers and Committees, Dr. D. W. Carter of Dallas.

REPORT OF REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND COMMITTEES

[Presented by Dr. David W. Carter, Jr., Dallas, chairman, and adopted section by section.]

Presidential Address

The first item considered by the Reference Committee on Reports of Officers and Committees consisted of those sections of the Presidential Address that were referred to this Committee (7, 8, 9, 10, 11, 13, 14, 17, 18, 19, 20, 21, 23, and 26.) The Committee wishes to express its appreciation of the excellent address of the President and the clear presentation of the many problems confronting the medical profession.

Report of Executive Secretary

The Reference Committee has read and studied the sections of the Executive Secretary's reports referred to it. The Committee wishes to commend the executive secretary for the excellence of his report which shows commendable advancements in many departments of the Association. The Committee would call particular attention to the improvement of the *Texas State Journal of Medicine,* the increased amount of valuable editorial material and its format. The rapid growth of Memorial Library, the useful service of the Physicians Placement Service, and other activities of the headquarters are most gratifying.

Report of Committee on Bracero Insurance and Medical Care

This Committee has made a detailed study of the report of the Committee on Bracero Insurance and Medical Care and the many problems involved, particularly the effect of bracero insurance on doctors and hospitals and the medical care being furnished the braceros. Your Reference Committee recommends adoption of the report as printed in the Handbook modifying:

1. Recommendation 1 to read as follows:

"That the United States Public Health Service, the United States Department of Labor, and the Texas State Department of Health be notified of the *apparent* inadequacy of examinations conducted at the ports of entry."

2. Recommendation 3 to read as follows:

"That no bracero be admitted to this country until he has been *adequately* examined and screened for disease conditions, *such procedures to include an adequate period of quarantine at the port of entry.*"

The Reference Committee recommends adoption of the supplementary report and its resolutions, amending the final paragraph of resolution 2 by inserting the full name of the Commission on Migrant Labor Agreement "which negotiates the yearly migrant labor agreements for foreign national contract labor."

This Reference Committee wishes to commend the excellent work of the Committee on Bracero Insurance and Medical Care and recommends that it be continued to pursue the study of this difficult problem.

Report of Executive Council

The Reference Committee has read the report of the Executive Council and wishes to approve it.

Report of Council on Medical Defense

The Reference Committee recommends adoption of the report printed in the Handbook and the supplementary report of the Council on Medical Defense. It would like to commend the work of this Council in the collection of facts concerning judgments and settlements, particularly, and for the publication of the helpful brochure entitled "Facts to Protect You and Your Patient."

Report of Adviser to Southwestern Chapter of Student American Medical Association

The Reference Committee approves the report of the Adviser to the Southwestern Chapter of the Student American Medical Association and recommends continued efforts to increase interest of the students in this organization.

Report of Medical Advisory Committee to Texas Society for Crippled Children

The Reference Committee has read the report of the Medical Advisory Committee to the Texas Society for Crippled Children and approves it as written in the Handbook.

Report of Committee to Study Hospital-Staff Relationships

This Reference Committee recommends the adoption of the report of the Committee to Study Hospital-Staff Relationships and the continuance of the committee to study this problem.

Report of Advisory Committee to Texas State Hospitals and Special Schools

The Reference Committee has read and approves the report of the Advisory Committee to the Texas State Hospitals and Special Schools.

Resolution: General Practitioner of Year

The Reference Committee recommends adoption of the resolution of the President, Dr. Milford O. Rouse, on the General Practitioner of the Year.

Report of Committee on General Arrangements for Annual Session

The Reference Committee on Reports of Officers and Committees read and approves the report of the Committee on General Arrangements for the Annual Session. This Reference Committee wishes to commend Dr. Ridings Lee and his committee for the excellent arrangements and their part in making this such a fine meeting.

Dr. Carter: I move the adoption of this report as a whole. [Thereupon said motion was seconded and carried, and the report was adopted.]

Dr. Deaton: The next item of business is the report of the Reference Committee on Resolutions and Memorials, Dr. Russell L. Deter of El Paso, chairman.

REPORT OF REFERENCE COMMITTEE ON RESOLUTIONS AND MEMORIALS

[Presented by Dr. Russell L. Deter, El Paso, chairman, and adopted section by section.]

Report of Delegates to American Medical Association

The report of Delegates to the American Medical Association is recommended for acceptance.

Report of Council on Medical Jurisprudence

The report of the Council on Medical Jurisprudence is recommended for acceptance. The supplementary report is also recommended for acceptance, and this Committee feels that the Council on Medical Jurisprudence should be commended for the splendid work it has done this year and particularly for its pamphlet, "Developments in State Legislation."

Report of Committee on Mental Health

The report of the Committee on Mental Health is recommended for approval as well as the supplementary report presented.

Report of Committee on School-Physician Relationships

The report of the Committee on School-Physician Relationships as published is recommended for approval as well as the supplementary report presented.

Report of Committee on Public Health

The report of the Committee on Public Health as published is recommended for approval as well as the supplementary report presented.

Report of Presidential Address, Section 12

a. This Committee recommends, as outlined by our President, that an 18 month objective study be carried out of medical education needs of the State of Texas, both by the Council on Medical Education and Hospitals of the Texas Medical Association and other groups such as the Texas Commission on Higher Education.

b. This Committee recommends to the delegates that San Antonio in Bexar County be designated as the site for the new medical school. The Reference Committee on Resolutions and Memorials is also of the opinion that 165 members in the freshman class is imposing an undue teaching burden on the Medical Branch of the University of Texas in Galveston. This Committee was unanimous in its approval of the requests and recommendations of the President.

Resolution: Federal Subsidy of Medical Education

The resolution to reaffirm the position against federal subsidies to medical education was approved unanimously with the following change in the resolved clause. The last six words were deleted, namely, "expansion or for any other purpose."

This deletion was done at the suggestion of Dr. John S. Chapman of Dallas as it was his opinion, and the unanimous opinion of the members of the Committee, that this portion of the resolution was too all-inclusive.

Mr. Speaker, I move the adoption of this section of the report.

Delegate: Before we vote on that, could we have that last paragraph read to us so that we can tell just what we are voting on?

Dr. Deter: Yes, sir, I would be glad to. [Re-reading paragraph as suggested from resolution referred to.] We left that out because it was our opinion it included too much. It would eliminate grants for study or, as it ended up in the discussion, it could eliminate just anything.

Dr. Deaton: Does that answer your question, Doctor?

Delegate: Yes, sir.

[Thereupon the motion above referred to was seconded and the same was duly carried.]

Resolution: Chemical Food Additives

This resolution was referred to the Committee on Cancer of the Texas Medical Association for further study.

I move the adoption of this section of the report.

Dr. Deaton: The Chair will recognize Dr. Joe Nichols.

Delegate: I move that debate be limited to five minutes. [Thereupon said motion was seconded and the same was duly carried.]

Dr. Deaton: You have five minutes, Dr. Nichols.

Dr. Joe D. Nichols, Atlanta: I would like to explain to the House of Delegates of the Texas Medical Association this resolution. I think I can in three minutes read to you the background points. Dr. William E. Smith from Englewood, N. J., has been doing cancer research for 14 years for the Rockefeller Foundation, and he asked me to bring this resolution to the Texas Medical Association. I should like to read a little bit from what he had to say [Smith, W. E.: Food Additive Legislation, Natural Food and Farming 3:6 (March) 1957]:

> Now, it is true that safe doses can be established for many poisons that are absorbed and excreted without residual effects. On the other hand, responsible bodies of cancer experts have repeatedly stated that safe doses cannot yet be established with any confidence for chemicals that induce cancer.
>
> This is due to the fact that cancer-inciting substances (carcinogens) have a different pharmacological action from most other poisons. They have irreversible effects on cells.
>
> I have induced cancer late in life in hundreds of animals by giving them when young a single dose of carcinogens in amounts that you could put on the head of a pin.
>
> Many considerations of this sort have led the German Research Council and the International Union Against Cancer to adopt resolutions against the use in food of any dose of a cancer-inciting substance.
>
> At the Fifth International Cancer Congress in Sao Paulo three years ago, the Symposium on Cancer Prevention, which I served as chairman, unanimously adopted a resolution against the concept of safe doses for carcinogens.
>
> Last summer, the International Union Against Cancer convened a Symposium on Food Additives in Rome. This symposium was attended by cancer experts from nearly forty countries, and our Food and Drug Administration was represented there. The Rome meeting specifically concluded that any substance found to induce cancer in any species of animal *in any dose* should not be approved for use in food.
>
> In 1955, the U. S. Food and Drug Administration found that cancer was induced by a pesticide known as "Aramite" and attempted to prevent contamination of food with this substance by establishing a zero tolerance for it under the Miller Pesticide Act.
>
> After proceedings initiated by the United States Rubber Company, FDA's decision has been overthrown, and it is now legal to sell food known to contain Aramite.
>
> This reversal was accomplished by arguments based on the so-called "Safe Quantity" principle, which, as I have shown, is totally repudiated by responsible bodies of cancer experts.

The recent FDA order to allow so-called "safe quantities" of a cancer-inciting pesticide in food creates a precedent that can be cited by any manufacturer, who wishes to introduce a carcinogenic additive into food.

Several hundred chemicals have already been found to induce cancer, and chemical manufacturers are not infrequently faced with the problem of what to do about the commercial exploitation of a new compound that has cost money to develop but that turns out to induce cancer when tested.

The precedent created by the Aramite decision affords a convenient loophole to permit manufacturers to go ahead and sell such compounds for use on or in food.

This is what the FDA calls a calculated risk. The calculation is that the manufacturer can get his profit, and the consumer takes the risk.

Gentlemen, I want to say to you that hundreds of chemical compounds are being added to foods today that are known to be carcinogenic. The American public looks to doctors to prevent this sort of thing, to protect them. Someone asked me today in a reference committee, who is going to decide what is a cancer-causing chemical additive? I throw that right back to you. Frankly, I think the doctors ought to decide; I think the American Medical Association ought to decide, and when they find that a certain chemical additive is carcinogenic, it ought to be stopped. The public relations of the American Medical Association, as some of you well know, is having trouble. There are many people in America who know full well that cancer-causing chemicals are being added to foods, and they are saying, "What are the doctors doing about it?" That is why I brought this resolution. Frankly, I think the doctors and the American Medical Association ought to assume their responsibilities. Where our Cancer Committee finds out that a chemical additive is carcinogenic, somebody ought to stop its use. At the present time there is no remedy.

Most of our people think that the Food and Drug Administration is here to protect the people, but the law is no good. There is a loophole in it that you can drive a 10 ton tractor through, and they are now doing it. This year Congressman Delaney has introduced a bill, and I have simply asked in this resolution that an amendment be added that a known cancer-causing food additive cannot be added. That is all. Another bill has been offered by Congressman Harris from El Dorado, Ark., which is close to where I live. He has introduced a bill which has in it the same loophole. This bill was given to him by the food industry, which is interested in making money regardless of what it does to the American public.

Frankly, I think the time has come when somebody ought to try to do a little preventive work on cancer, which is increasing by leaps and bounds.

I second the motion. I think it ought to go to the Committee on Cancer. I don't think they should throw it in the wastebasket.

Dr. Deaton: The chairman of the reference committee has made a motion that this be referred to the Committee on Cancer for further study and the motion is seconded. Is there any further discussion—are you ready for the question? [Thereupon the question was put and said motion was duly carried.]

Dr. Deter: I would like to say that the next group of resolutions have not been changed materially as to intent. When I say that a new resolution is being submitted, it means we changed the number of "Whereases." Where some had seven and eight, we cut them down to two. We tried to keep the spirit of the resolution and did not change the resolving clauses in any way.

Resolution: Certifying Board for Ophthalmic Technicians

The resolution pertaining to a certifying board for ophthalmic technicians was considered and is unanimously recommended for adoption.

Resolution: Twenty-Third Amendment

The resolution supporting the proposed twenty-third amendment as presented by Dr. Royce was considered, and the following resolution is presented in lieu thereof:

Whereas, the United States government is engaged in a multi-billion dollar business which is in competition with private citizens and results in an operational loss increasing the federal deficit and depriving the government of revenue which would accrue from profits of private enterprise; therefore be it

RESOLVED: That the Texas Medical Association House of Delegates in regular session assembled this 28th day of April, 1957, exercise its constitutional right in urging Congress to submit to the people of the various states an amendment to the Constitution providing that the government of the United States shall not engage in any business, professional, commercial, or industrial enterprise in competition with its citizens except as specified in the Constitution; and be it further

RESOLVED: That copies of this resolution be sent to the President of the United States, Senators Lyndon Johnson and Ralph Yarborough, Representatives of the State of Texas in the House, and to Governor Price Daniel of the State of Texas; and be it further

RESOLVED: That the Texas Medical Association delegates to the American Medical Association be instructed to introduce this resolution at the House of Delegates meeting of the American Medical Association, June, 1957.

Resolution: Repeal of Sixteenth Amendment

This resolution favoring the repeal of the income tax law as presented by the Harris County Medical Society was considered and the following resolution is presented in lieu thereof:

Whereas, the sixteenth amendment of the Constitution of the United States has resulted in confiscatory income tax levies by the federal government; and

Whereas, the federal income tax has contributed greatly to the centralization of power in the federal government at the expense of the states and will soon lead to complete socialization; and

Whereas, the Harris County Medical Society, in regular business session assembled this 10th day of April, 1957, did go on record as supporting the Hoffman Amendment, H. J. R. 232, to the federal Constitution, which would repeal the sixteenth amendment to that Constitution; therefore be it

RESOLVED: That the Texas Medical Association go on record as supporting the Hoffman Amendment, H. J. R. 232, to the federal Constitution, which would repeal the sixteenth amendment to that Constitution; and be it further

RESOLVED: That the delegates to the American Medical Association from the Texas Medical Association initiate similar action in the House of Delegates of the American Medical Association in June, 1957.

Resolution: Jenkins-Keogh Bill

The resolution supporting the Jenkins-Keogh bill, presented by Dr. Moreton, was considered and the following resolution is presented in lieu thereof:

Whereas, the legislation known as the Jenkins-Keogh bill would provide a tax deferment to the self-employed on a portion of their income deposited in certain restricted and regulated retirement programs; therefore be it

RESOLVED: In the interest of fairness and equality to the self-employed individual, that the Texas Medical Association House of Delegates endorses the principle of the Jenkins-Keogh bill; and be it further

RESOLVED: That copies be sent to Senators Lyndon Johnson and Ralph Yarborough, to representatives of the State of Texas in the House, and to all members of the Ways and Means Committee of the House of Representatives; and be it further

RESOLVED: That the Texas Medical Association delegates to the American Medical Association be instructed to introduce this resolution at the House of Delegates meeting of the American Medical Association, June, 1957.

Resolution: Bricker Amendment

This resolution supporting the Bricker Amendment was considered and the following resolution is presented in lieu thereof:

Whereas, a treaty overrides our federal Constitution and all state laws, thus becoming the internal law of the land affecting every citizen; therefore be it

RESOLVED: That the Texas Medical Association House of Delegates firmly endorses S. J. Resolution 3, Eighty-Fifth Congress, as introduced by Senator John Bricker, and H. J. Resolution 264 as introduced by Rep. Bruce Alger; and be it further

RESOLVED: That copies of this resolution be sent to Senators Lyndon Johnson and Ralph Yarborough and to all members of the House and Senate Judiciary Committees and Representatives from the State of Texas; and be it further

RESOLVED: That the Texas Medical Association delegates to the American Medical Association be instructed to introduce this resolution at the House of Delegates meeting of the American Medical Association, June, 1957.

Dr. Deter: Mr. Speaker, I now move that the reports and resolutions with the supplemental reports and amendments be adopted as a whole. [Thereupon said motion was seconded and the same was duly carried.]

Dr. Howard O. Smith, Marlin: I think it would be apropos to add this motion, that a copy of this resolution supporting the Bricker Amendment be mailed to every member of the Texas Medical Association. It is really fantastic how few people know anything about it. To get all of them to find out what the Bricker Amendment really is, I think a copy of this resolution should be sent to every member of the Texas Medical Association.

Dr. Deaton: The chairman of the committee says he will accept that as an addition, Dr. Smith, if you want to offer it as a motion.

Dr. Smith: I will offer that as a motion, that a copy of your resolution as submitted by your committee be sent to all members of the Texas Medical Association. Perhaps a copy of all these amendments would not be amiss—I do not make that motion, however, at the present time.

Dr. Deter: I will second that motion.

Dr. Deaton: You heard the motion and the second of it.

Delegate: They will be published in the *Journal,* won't they?

Dr. Deaton: I believe they will be published in the June *Journal.*

Dr. R. W. Kimbro, Cleburne: Mr. Speaker, I would like to point out that it costs approximately $750 to $800 to have one mailing made. In our experience, mailings are not generally read, but if you will consider that publication in the *Journal,* that adequate coverage would be made that way—actually, we have been mailing out information about the Bricker Amendment and so on for years, and if they don't know about it now through the AMA's really fine service, I doubt that they will ever know about it. I just hate to see us spend $750 to $800 of our money for an additional mailing.

Dr. Deaton: You have heard Dr. Kimbro. This will be published in the June *Journal* in the minutes of this session of the Texas Medical Association.

Dr. Smith: I would be glad to withdraw that motion. It just seemed to me that this ought to be brought out.

Dr. Deaton: The motion of Dr. Smith or his amendment was withdrawn. We have not voted on his withdrawal —is there any objection to him withdrawing it; apparently none and I don't think that really takes a vote, since he has now withdrawn his motion. I think that is taken care of. Dr. Deter, your report has been adopted as a whole.

Dr. Deter: Mr. Speaker, it is encouraging that the chairman of our Board of Trustees is not spending our money like the federal government is.

Dr. Deaton: Next is the report of the Reference Committee on Finance, and the Chairman is Dr. Allen Stewart of Lubbock.

REPORT OF REFERENCE COMMITTEE ON FINANCE

[Presented by Dr. Allen T. Stewart, Lubbock, chairman, and adopted section by section.]

Report of Executive Secretary

The report of the Executive Secretary, item 2, was reviewed, and we wish to commend the efforts of the Secretary in his advertising program whose success is evident by an increase in revenue of 51 per cent since the initiation of the program in 1954.

Item 3, dealing with the financial study of *Journal* operation, was next studied. It is noted with gratification that a medical journal as excellent as ours has for 30 years been furnished to the membership for the modest sum of $3.

We note with interest the recommendation of the Secretary and the Board of Trustees that an increased subscription rate for nonmembers be made, and we recommend that such an increase be approved, leaving the exact rate to charge nonmembers to the discretion of the Board.

Item 14. Hand in hand with the gratifying increase in advertising revenues of the *Journal* has been a phenomenal increase in the income from technical exhibits. We note with great satisfaction an increase from $6,258 in 1954 to $12,000 net for the present session. This excellent record is greatly appreciated and we wish to compliment the Executive Secretary on this excellent report.

Report of Treasurer

The report of the Treasurer outlining the financial condition of the Texas Medical Association and the Texas Memorial Medical Library Association has been reviewed as well as the notation of approval by Schieffer and Lyda, certified public accountants. We recommend the approval of this report as submitted and note with pleasure the excellent financial state of the Association at the present time.

Report of Board of Trustees

The report of the Board of Trustees was checked carefully. Item 1, Financial Affairs, gives an outline of the sources of

revenue of the Association as well as a breakdown of the distribution of the $50 membership dues. There is also mention of the expenditure for the services of the Memorial Library in the amount of $31,000; the expense of the annual session and maintenance of the headquarters office, both operations and maintenance, are carefully itemized. It is also noted that a modest portion of the expenses incurred by the President in his travels and the expenses of the seven delegates to the American Medical Association have been defrayed by the action of the Board. We commend this move, realizing that in the case of the President, the amount of his expenses far exceeded that which he submitted to the Board. It is recommended that the Board follow this precedent by setting aside a stated sum which can be drawn on by the President to defray expenses during his term of office, the amount of the sum to be determined annually by the Board in accordance with such conditions and contingencies as may arise.

It is a matter of no little gratification to review the progress of the Board in reducing the loan which was incurred in building the new headquarters in Austin. For the mortgage to be reduced $100,500 since 1952 is remarkable, and we wish to pay tribute to past members and present members of the Board as well as deceased members who have brought this situation to fruition. The handsome headquarters building will always be a monument to their unselfish efforts.

Item 2, Special Appropriations. This Committee approves without special comment the various items of the special appropriations as outlined, realizing that there are various items of expense which must be met by the Board during the current year between sessions of the Association.

Item 3, Contract on Medicare. The efforts of the Board in securing as satisfactory contract as possible in the Dependents Medical Care Program is commended as well as the efforts of the special committee which journeyed to Washington in our behalf.

Item 4. It is noted with satisfaction the progress which has been made in setting up a group disability insurance program for all members of the Association who care to participate.

Item 5 and 6. The report on the maintenance of the Committee on Public Relations and the Liaison with Medical Education are recommended as written.

The supplementary report of the Board of Trustees has been reviewed. In this a detailed account of the operation of the disability program has been outlined by the chairman, especially the comparison of coverage and benefits between this program and that of others studied by California is noted.

It is further noted with gratification that the Texas Medical Association has been named beneficiary in two trusts which have been recently established by an anonymous donor. We are happy to note that the present administration of the affairs of our Association has been complimented by the action of such a donor. Also the report of the two large bequests by the late Dr. Sam E. Thompson of Kerrville was announced by the chairman, one for the establishment of a scholarship fund and the other a contribution of $50,000 to the Memorial Library of the Medical Association.

Finally it is noted that the 1957 budget provides a cushion of only 2.5 per cent to meet adjustments, emergencies, and additional requests in the months ahead, and in substance the Association's activities have obtained the maximum growth under present operational funds.

Report of State Committee for American Medical Education Foundation

The report of the State Committee for American Medical Education Foundation and the supplementary report have been reviewed. The report of this committee as it appears in the Handbook and the financial statement in the supplementary report have been checked by the Committee. This report shows that in 1955, something over $20,000 was contributed to AMEF and practically the same amount in 1956. At the same time in 1955, Texas physicians contributed $21,410 to Texas medical schools, but in 1956, the amount was raised to $74,429. In addition, the Woman's Auxiliary's fund for Texas medical schools will be about $9,000. It is noted that contributions in Texas have never met the goal set by the AMEF and furthermore that the amounts raised for the medical schools in Texas have not equalled the amount received by medical schools in Texas from the AMEF.

The recommendation of this Reference Committee for the AMEF State Committee is a more extensive campaign for funds. We also recommend this committee's suggestion that its membership be increased to have a representative from each medical school.

Dr. Stewart: Mr. Speaker, I wish to thank the members of my committee, all of whom, with the exception of one, were present at these deliberations, and I move the adoption of the report as a whole. [Thereupon said motion was seconded and carried and said report was adopted.]

Dr. Deaton: I see that we got by without Dr. Stewart recommending an increase in the dues. Next is the report of the Reference Committee on Constitution and By-Laws, Dr. John Thomas of Austin.

REPORT OF REFERENCE COMMITTEE ON CONSTITUTION AND BY-LAWS

[Presented by Dr. John F. Thomas, Austin, chairman, and acted upon section by section. Unless otherwise indicated, the recommendation of the reference committee was adopted.]

Dr. John Thomas: Mr. Speaker and members of the House, your Reference Committee on Constitution and By-Laws begins with the report of the Council on Constitution and By-Laws, at pages 35 to 40 of your Handbook.

Report of Council on Constitution and By-Laws

1. Resolution regarding the office of Vice-President. This is also item 3 of the President's address. The resolution and the President's comments are received. Since constitutional amendments are involved, it is recommended this item be laid on the table to be reconsidered next year.

2. Establishment of standing committees, including a portion of item 1 of the President's address.

a. Committee on Scientific Exhibits. The Reference Committee recommends adoption.

b. Committee on School-Physician Relationships. The Reference Committee recommends adoption.

c. Committee on Rural Health and Doctor Distribution. The Reference Committee recommends adoption.

d. Resolution for expediency. The Reference Committee recommends adoption.

3. In this connection, the President in item 1 of his address suggested that the Council on Medical Education and Hospitals be increased to 10 members with stipulations regarding types of practice of a portion of the members of the Council. The Reference Committee recommends that this item be referred to the Council on Constitution and By-Laws for further study.

4. Harris County resolutions from last session.

a. Providing that intern-resident members shall not have the right to ". . . endorse applications for membership, or serve as a delegate or alternate delegate to the Texas Medi-

cal Association." Item 5 of the President's Address also relates to this matter. The Reference Committee recommends adoption of the resolution as presented.

b. Providing that inactive members shall not have the "right to vote, hold office, endorse applications for membership, or serve as a delegate or alternate delegate to the Texas Medical Association." The Reference Committee recommends adoption.

5. Changes for conformity.

a. Time and place for annual session. The Reference Committee recommends adoption.

b. In Chapter X, Section 12, of the By-Laws, inserting the word "provisional" so that it is specifically stated that a transfer member shall be accepted on a provisional status. This item was also recommended by the Board of Councilors. The Reference Committee recommends adoption.

c. Change to include officers of the Air Force as well as Army and Navy as eligible for membership. The Reference Committee recommends adoption.

Supplementary Report of Council on Constitution and By-Laws

6. The Reference Committee considered the supplementary report of the Council on Constitution and By-Laws:

a. Abolishing the Advisory Board to the Texas Society of Medical Technologists. The Reference Committee recommends adoption.

b. Change name of "Section on Clinical Pathology" to "Section on Pathology." The Reference Committee recommends adoption.

c. Abolish requirement providing that a written report of trial proceedings be sent an accused member. The Reference Committee recommends adoption.

Dr. Thomas: In Chapter X, Section 18c, page 37 of the By-Laws, this section deals with the handling of the reports of the trial of a member. The sentence is the next to the last sentence in Section 18c and it states: "The committee, after recommending action to the Board of Censors and turning over to the Board its investigation file, shall furnish a written statement in brief of the findings of the committee to both the original complainant and the accused physician." That amounts to the accused physician receiving a written report of the hearing and it is thought injudicious that that should be in there, as well as being unnecessary stenographic work. The complainant is also included, and that was thought to be unnecessary stenographic work. This matter was considered by the Council on Constitution and By-Laws and it was felt that there was justifiable reason to remove it, and the Reference Committee agrees and recommends that it be stricken. Mr. Speaker, I move the adoption of this section of the report. [Thereupon said motion was seconded.]

Dr. Hardwicke (in the Chair): This makes it mandatory on the committee who tries a member for misconduct that a written report of the proceedings before the trial body must be sent to the accused member. He can secure them anyway, if he wants them, but as it is now set up it is mandatory upon them to send it to him. This motion merely eliminates that mandatory provision.

Delegate: Aren't you talking about the grievance committee instead of trial of members; the records of the grievance committee?

Dr. Hardwicke: I believe that is correct. Are there any further questions or is there any further discussion on this motion?

Dr. J. H. Wooten, Columbus: As a matter of practical experience, the grievance committee should not keep records. We have run a lot of hearings in our district, and we have been advised not to keep records. This is merely a preliminary hearing. In other words, these records are dangerous things to have around, and there is no reason at all to have the records. I certainly would go along with this recommendation of the committee.

Dr. Hardwicke: You are probably right in your assumption, but this motion can certainly do nothing but good. Are you ready for the question?

Delegate: Is it my understanding that this would also abolish affording the complainant a written report of the findings of the grievance committee?

Dr. Thomas: I would presume the complainant could get one if necessary. It is pointed out that oftentimes the complainant in a grievance committee matter is a lay person.

Dr. Hardwicke: This merely eliminates the mandatory portion. I presume if it is customary for the records to be sent out by the particular grievance committee and it is asked, the committee could follow the procedure it has followed in the past. It is my personal opinion to agree with Dr. Wooten, that it is better not to have any record at all.

Delegate: This amendment would be good in the trial of a physician, but where you have a lay person who brings up a complaint before a grievance committee and the hearing is held, it is all but necessary that the lay person be informed of the findings of the grievance committee. This does not just apply to the physician on the trial of a member. If it applies only to trials of doctors, I think that is fine but if that includes grievances against lay personnel, I believe we should defeat the motion. Would the chairman elucidate on that?

Dr. Hardwicke: This motion merely states that it is not mandatory. Dr. Thomas, do you care to discuss it any further?

Dr. Thomas: I originally said "trial of the member" and that was in error, which may be part of the confusion. The intent or the need of striking this particular sentence from the By-Laws is exactly the proposition presented by Dr. Wooten, that it is a dangerous thing to have to have everything in writing as stated here. It is food for subsequent suit or subsequent action. I think in specific incidents if it were required that a report be made to the accused or to the complainant, that could be done at the discretion of the grievance committee, but the mandatory factor in our By-Laws, I think, should be stricken out.

Delegate: I am for this part as I now understand it in that the grievance committee has found cause for additional action by the board of censors and therefore they passed that By-Law that it may be written and very often should be written. I am for that part but at the same time I think this whole grievance committee setup is rather poor and should be rewritten. Many of these are requests for inquiries and not complaints.

Dr. Hardwicke: You may well be right, but that is hardly germane to the question which we have under discussion at this moment.

Delegate: Preceding that it says all complaints—that is, complaints to the grievance committee—must be turned over to the board of censors with written recommendations either for or against further action. If a lay person files a complaint against a doctor and that doctor is perfectly innocent, as it appears to the grievance committee, that has to be forwarded to the board of censors by the grievance committee with the report that no further action is recommended after investigation. Now that lay person should be informed of the same thing. You have to do that to show them that their complaint was considered and state the reasons why so they can understand why the doctor was right and is not just being whitewashed. I think that is a pretty important sentence in the Constitution, and I hate to see us vote on this matter hastily without some thought by the entire group. I move that this be tabled and not be voted on tonight. [Thereupon said motion was seconded.]

Dr. Hardwicke: The motion has been made that the entire question be tabled. This is not a debatable motion.

Those in favor of tabling the motion say aye—the ayes have it and the motion is tabled. Proceed, Dr. Thomas.

Dr. Thomas: It is nice to have a little variation. The next item also refers to this same section, which deals with disciplinary action against a member. Our recommendation is:

d. Change the time for filing an appeal of a disciplinary action from "sixty" days to "twenty" days. The Reference Committee recommends adoption.

Report and Supplementary Report of Board of Councilors

7. The report and supplementary report of the Board of Councilors are next:

a. Providing that in large county societies with specified functions carried on by a board of directors, an accused member has the right to choose whether his trial shall be heard by the board of directors or by the county society as a whole. The Reference Committee recommends adoption.

Dr. W. H. Hamrick, Houston: I would like to speak briefly against that. In the larger societies it has been found out the hard way that you need an executive board or a jury made up of past presidents to try a member rather than a group of the member's friends. We have had it out and we urge you in the larger societies to leave it to the discretion of the society to make the rule in advance that it shall try an accused member by its executive board. If you let it be by the society as a whole, the individual member can carry on the proceedings as has happened until 1 or 2 or 3 o'clock and get his majority of 30 out of a thousand and get out of anything. This is a travesty on justice. I am sure it is fitting for the smaller groups, but it is not appropriate in my opinion for the larger societies but should be left to their discretion.

Dr. F. W. Yeager, Corpus Christi: We presented this motion and it originated in one of the larger societies, that is, in a society with around 200 members. We have recently held a trial before the society as a whole. It is not a matter of sitting there until 1 or 2 o'clock. This trial extended over some three or four nights and required about 1,500 man hours. We would set a deadline of 10:30 that we were going to adjourn, and everyone knew that. We feel when a man is going to be tried, it is a pretty serious thing to be put out of a medical society and to lose hospital privileges. It cripples a man, and I think he should be given every opportunity to clear himself. I think he should certainly be considered innocent until proven guilty.

Now, as it is written in the Constitution and By-Laws, it says that the executive committee—and I am quoting from memory—may hold these trials and render a verdict. They are given the authority now, if they have been given authority by the society as a whole. When a man starts to make his appeal—and any time a county society rules against a man, if he thinks there is a chance, there is going to be an appeal—and it goes to the Board of Councilors and he has had no say in it and is tried by a small group of those men in that society against his wishes, then he can bear down on the persecution angle. If the Councilors go along with the county society and uphold the decision, he appeals to the AMA, to the Judicial Council, and then you have a trip to Seattle or to Denver or wherever they are meeting and your society will find itself spending thousands of dollars in the prosecution of a man. If he had his choice of being tried either before the executive committee or the society as a whole, the chances are the appeals would not be so frequent. It was in trying to correct that in the Constitution and limit it to societies over 100 members where you do have that problem of getting the quorum out, that this recommendation was made for the change in the By-Laws.

Dr. Hardwicke: Is there any further discussion on the motion?

Delegate: Will you read it again?

Dr. Hardwicke: The question before the House is the adoption of the motion made by the chairman of the Reference Committee on Constitution and By-Laws, and it reads: "providing that in large county societies with specified functions carried on by a board of directors, an accused member has the right to choose whether his trial shall be heard by the board of directors or by the county society as a whole."

Dr. Denton Kerr, Houston: I think we are going to an extreme in this. Dr. Yeager covered the point that it is a tremendous handicap to have your hospital privileges taken away from you and I agree with that. I think it is terrible for a fellow to have to go to the electric chair, but a jury of 12 men decides that. In our courts of law, as has been practiced in our country for all these decades, if they decide 12 men can do the job (and I know of cases where one man does and particularly in the federal court), certainly in the large societies we can get 12 honest people who will give a fellow a fair trial. You can see that in a large society you would not be out just 1,200 or 1,500 man hours, but you may be out thousands of man hours. I hope you do excuse the larger societies. I think there are probably only one or two in the state. Now all of you with societies under 1,000, if you want this, I am certainly for you having it, but I would like to amend this motion to the societies of more than 1,000 having the right to decide whether a member shall be tried by the executive committee or by the society as a whole. If some of the other societies want the entire society to do it, well and good, but can you imagine a fellow committing a heinous crime, shooting somebody down, and the whole community having to come in and try that fellow? I can think of nothing more ridiculous. I hope you will accept my amendment, Mr. Chairman, to this motion and excuse the societies of a thousand or more men and let us decide this for ourselves.

Dr. Hardwicke: The discussion is on the amendment of whether it should be limited to societies of 1,000 or more.

Dr. Ridings E. Lee, Dallas: I think if the members of some of the larger societies will examine their constitution and by-laws, they will find (and I know that this happens to be true in our own constitution and by-laws) that a man first must be tried by 12 men. If it is his desire, he may appeal to the society as a whole and the trial may be conducted over or the records only may be presented to the society as a whole in conducting the second trial. If he is dissatisfied with that, he may appeal to the Board of Councilors. I think the provision for appeal to the society as a whole after the man has been tried by 12 men, which is present in most of the constitution and by-laws of the larger societies, will answer the entire problem much more satisfactorily than conducting your original trial before the entire society.

Dr. Hardwicke: The discussion is still on the amendment as to the counties of 1,000 or more.

Dr. J. T. Billups, Houston: This whole problem, including the amendment, was brought on by the Board of Councilors with good intentions of protecting the rights of an accused. I can see right now that this requires further study and I would like to make a motion to table this problem at this time. [Thereupon said motion to table was seconded and the same was duly carried and said proposal was tabled.]

Dr. Hardwicke: This portion of the report is tabled. Proceed, Dr. Thomas.

Dr. Thomas: b. Providing that a member who is refused membership by a county society may, with approval of the Board of Councilors, apply to another county society "whose territorial limits join those of the component county society under whose jurisdiction he resides."

The Reference Committee recommends adoption.

c. Establishment of branch societies. The Reference Committee recommends adoption.

d. Stipulating that time spent as an intern-resident member shall not be applied to the required 24 months as a provisional member. The Reference Committee recommends adoption.

Indoctrination Program

Dr. Thomas: 8. The next is concerning the indoctrination program.

a. Under this heading there were several reports included, for example, a portion of the report of the Board of Councilors, dealing with transfer members. Then item 6 of the Presidential address, which was made up of three points in reference to this and suggested that transfer members five years or more should be excused from that. The report of the Committee on Indoctrination took cognizance of the fact that this is the point about which they had the most discussion, but did not venture to make any suggestion, feeling that it would be brought up aptly otherwise, which it has, and finally a resolution introduced from Dallas County, by Drs. Jones and Marchman, which again proposed the five year exemption for transfer members.

The paragraph to be presented is the majority opinion of the Reference Committee after considering all of the above mentioned proposals. The paragraph is as follows:

"Any member accepted on transfer from another component county medical society shall also serve twenty-four (24) months as a provisional member and shall attend the indoctrination program, unless such member has previously attended the indoctrination program presented by the Texas Medical Association, before being considered for regular membership."

The Reference Committee recommends adoption. That cuts across all the above proposals and is the opinion of the Committee, and I move the adoption of the report as stated. [Thereupon said motion was seconded.]

Delegate: Does that exclude the later possibility of the larger societies which have well established indoctrination committees—is that included here?

Dr. Hardwicke: As I understand it, everyone must take the indoctrination program unless he has previously taken it.

Dr. Thomas: The second item from Dallas County is included in this. It throws out the second item of this proposal.

Dr. Hardwicke: Those in favor of the adoption of the motion say aye—those opposed, no—the motion is adopted. Proceed, Dr. Thomas.

Dr. Thomas: b. Three of the reports or resolutions relative to the indoctrination program suggested also presenting the program at the annual session and/or some other day than Saturday. The stipulation is that it be presented in conjunction with the Executive Council meeting.

A portion of the resolution from Dallas County is as follows: "Qualifying indoctrination programs shall be offered at the time of the annual session of the Texas Medical Association." That means in addition to the regular session of the Executive Council meetings. The Reference Committee recommends adoption. Mr. Speaker, I recommend the adoption of this portion of the report. [Seconded.]

Dr. Frank Kidd, Dallas: I might rise, Mr. Speaker, to say that this is included at the request of the Seventh Day Adventists, who wanted to have an opportunity to be indoctrinated at a time other than on Saturday, which is their Sabbath. This was considered in this reference committee, and it was the proposal that some day other than Saturday or Sunday would be used for this purpose. It was discussed in that manner so that they could go to Austin either in September or January or come to the annual TMA meeting at which time they could be indoctrinated. Is that right?

Dr. Thomas: That's right, although it is not spelled out in here. It was implied in the report from the Indoctrination Committee. They were aware of that.

Dr. W. H. Hamrick, Houston: Shouldn't that be "and also the place of meeting"? This is piecemeal and I don't understand it; I don't think anybody else does who was not at the reference committee meeting.

Dr. Hardwicke: It says at the time of the annual meeting of the Texas Medical Association.

Dr. Hamrick: Is that in Austin or where?

Dr. Hardwicke: Well, they never meet in Austin.

Dr. Hamrick: I would rather this thing be considered in one piece. I therefore move that we rescind all the action we have taken on indoctrination and consider this report as a whole before we vote on any one part. [Motion seconded.]

Dr. Hardwicke: A motion is made and seconded that the House rescind its action pertaining to transfer members from component societies.

Dr. Kidd: Mr. Chairman, may I rise once more?

Dr. Hardwicke: Yes, sir.

Dr. Kidd: I would like to direct my remarks to the Harris County Medical Society. I was a member of this reference committee. Of course being from a big county society we have the same problems you have. Indoctrination is here—no doubt about it. We fought for the things we thought were right in the last year's session the same as in this year's session. I believe that you are going to defeat something that is good for your organization if you follow the tactics just proposed. I believe if you would accept an amendment stating "at the time and place of the Texas Medical Association annual session," in addition to these two times in Austin, you would come out about as well as you could hope to do, and I would strongly advise after very careful consideration that that be considered.

Dr. Hardwicke: A motion has been made and seconded that the House rescind its action. Those in favor of the House rescinding its previous action pertaining to the transfer members and provisional members attending the indoctrinational course, say aye—those opposed say no. The noes have it and the motion stands as originally adopted. We are now down to the question pertaining to the annual session which we were discussing a while ago.

Dr. Kidd: May I make that proposed amendment, that it be "at the time and place of the annual session" so that will clarify the matter as brought up.

Dr. Hardwicke: You are adding the words "and place." Is there any objection to that amendment? If not, we will proceed on the motion as amended. [Thereupon said motion being put to a vote the same was duly adopted.]

Proceed, Dr. Thomas.

Dr. Thomas (continuing with report): c. The above actions relative to the indoctrination program will require changes in several places in the By-Laws. Provision is hereby made for such authorized changes. The Reference Committee recommends adoption.

Presidential Address, Item 4

9. In Item 4, the President suggested that Chapter X, Section 26 (p. 40) of the By-Laws dealing with delinquency in payment of dues should be rewritten. The Reference Committee agrees and requests that this should be done by the Council on Constitution and By-Laws.

However, it is further recommended that in the first paragraph, "April" should be substituted for "January" in line 7, so that a member is *not* delinquent until April 1 rather than January 1, as is now the case.

The Reference Committee recommends adoption.

Amendment: Sectional Delegates

10. The Dr. Heare resolution regarding delegates to the House from the several scientific sections. As a constitutional amendment, this is to be laid on the table to be considered at the next session. The Reference Committee recommends adoption.

House of Delegates Procedure

11. This Reference Committee is of the opinion that the current machinery of the House of Delegates is inefficient; and with an increasing number of working committees, this trend can only become more complex. It is recommended that study should be given to methods of streamlining the current procedure either by the Speaker and Vice-Speaker or by a special committee. The Reference Committee recommends adoption.

Dr. Thomas: Mr. Speaker, I now move the adoption of this report as amended as a whole. [Thereupon said motion was seconded and the same was duly carried.]

Dr. Deaton (resuming the Chair): The next item of business is the report of the Reference Committee on Scientific Work, Dr. J. D. Murphy, chairman.

REPORT OF REFERENCE COMMITTEE ON SCIENTIFIC WORK

[Presented by Dr. James D. Murphy, Fort Worth, chairman, and adopted section by section.]

Presidential Address, Item 2

The Committee considered item 2 of the Presidential address concerning the creation of a committee on military medical affairs and a committee on atomic or nuclear medicine and recommends that appointment of such committees be left to the discretion of the incoming President. If a committee on atomic or nuclear medicine should be set up by the incoming President, members interested in radioactive isotopes should compose this committee, which might well include a radiologist, cardiologist, public health physician, hematologist, general practitioner, and nuclear physicist if available.

Report of Executive Secretary, Items 15 and 16

The Committee considered item 15 of the report of the Executive Secretary, which deals with the 1958 annual session to be held in Houston, April 19-23. The House of Delegates has approved the city and the dates. The Executive Council, Board of Trustees, and Council on Scientific Work have concurred that the Shamrock-Hilton be designated as headquarters hotel. The Committee approves item 15.

Item 16 deals with the 1959 annual session to be held in San Antonio April 18-22. The headquarters hotel will be chosen at a later date. The Committee wishes to point out to the delegates that according to the Constitution, Article VI, "The time and place for holding each annual session shall be fixed by the House of Delegates three years in advance, or by the Executive Council, and the Executive Council shall have the authority to change both time and place." The Committee recommends adoption of item 16.

Report of Council on Scientific Work

The Committee considered the report of the Council on Scientific Work. We would like first to congratulate Dr. May Owen and her committee for a truly remarkable program, which is firm evidence of a year full of hard work and accomplishments. We would also point out that there will appear some 24 out-of-state speakers, more than 17 related specialty societies will hold meetings, and refresher courses will be given on Monday, Tuesday, and Wednesday on a variety of subjects.

Social activities have not been neglected—alumni banquets Monday, fraternity parties preceding the President's Dinner Party Tuesday evening, and ending with an enthusiastic luncheon Wednesday noon. You are urged to secure your tickets to these functions today.

This Reference Committee recommends that the members of the Council on Scientific Work be given an ovation for their hard work and the results of which have already begun to unfold.

Report of Committee on Cancer

This Reference Committee studied the report of the Committee on Cancer. A survey was conducted by the Committee on Cancer as directed first by the House of Delegates and later by the Executive Council, the results of which are not made known in the report submitted. However, the results of this survey are available to those interested at the Texas Medical Association headquarters. The committee is commended for setting up conferences to improve education, diagnosis, and treatment through tumor clinics. The Reference Committee feels that the resolution passed by the House of Delegates in 1955 instructing this Committee on Cancer to survey and make plans for the care of indigent cancer cases at their local level has not been entirely fulfilled by this recent survey. The survey has shown what is and what is not available. However, this committee should go further in formulating plans to solve the problems at the local level and to encourage the county commissioners to help with this problem.

Supplementary Report of Committee on Cancer

The committee approves the supplementary report of the Committee on Cancer with the exception of the paragraph which reads: "The Committee will attempt to secure permission from the California Cancer Committee for the reproduction of a pamphlet entitled 'Unconventional Cancer Treatment Methods,' to be mailed to all members of the Texas Medical Association." The reference committee refers this paragraph back to the Committee on Cancer for further study and proper legal opinion.

Report of Committee on Cardiovascular Diseases

This Reference Committee reviewed the report and supplementary report of the Committee on Cardiovascular Diseases. The Reference Committee recommends adoption of these reports and would like to emphasize the services available to the Texas Medical Association members by the Texas Heart Association.

Report of Committee on Maternal Mortality

This Reference Committee reviewed the report of the Committee on Maternal Mortality. The Reference Committee would like to call to the attention of the delegates the detailed statistical study done by this committee and to point out that hemorrhage and inadequate prenatal care are perhaps the principal causes of maternal mortality. The Reference Committee wishes to commend the members for this work and recommends the report be approved.

Report of Committee on Blood Banks

The Reference Committee on Scientific Work reviewed the report of the Committee on Blood Banks. We com-

mend this committee for their watchfulness of the local and national changes and improvements in blood gathering and distribution. We recommend adoption of the resolution contained in their report. The resolution states in effect that the drawing and giving of blood definitely involves medical knowledge and patient care and hence matters dealing with blood banking should be controlled by the practicing physicians of organized medicine, not national lay or governmental organizations.

Supplementary Report of Committee on Blood Banks

The Joint Blood Council consists of representatives from the following: American Medical Association, American Hospital Association, American Society of Clinical Pathologists, American National Red Cross, and the American Association of Blood Banks. Your Reference Committee feels that the resolution in the supplementary report relating to the Joint Blood Council should be adopted.

Resolution: Medical Technologists

The Reference Committee on Scientific Work considered the resolution concerning medical technologists presented by Dr. George Turner of El Paso. By way of explanation, the standards for this type of medical technologists require a college degree. The Committee feels that propagation of this idea would do the following: (1) give recognition to the medical technologists, (2) improve standards, (3) encourage recruitment, (4) remove them from the wage-hour status, and (5) make them eligible for commission in the armed services.

House of Delegates Procedure

At the request of the Speaker, this Committee considered methods by which the procedure in this House of Delegates might be streamlined.

This Committee would like to recommend that the Speaker appoint a rules committee consisting of five members from the House of Delegates whose duties might include consideration of the following: (1) Methods of introduction of resolutions. (2) Elimination of oral presentations of supplementary reports, and secondary nominations for General Practitioner of the Year, and the streamlining of resolutions. Insofar as possible all supplementary reports and resolutions should be mimeographed and available to the delegates. (3) Restriction of debate before the House of Delegates to five minutes per speaker. (4) Preparation by the Speaker of a mimeographed sheet which tells insofar as possible where all reports and resolutions will be referred.

Dr. Murphy: I would like to thank those who appeared before the committee to give us the information necessary for our deliberations and to the committee members for their time and cooperation. I move the adoption of the report as a whole. [Thereupon said motion was seconded and the same was duly carried.]

Dr. Deaton: Next is the report of the Reference Committee on Medical Service and Public Relations, and Dr. Lowry of Austin is chairman.

REPORT OF REFERENCE COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS

[Presented by Dr. Frederick C. Lowry, Austin, chairman, and acted on section by section. The recommendation of the reference committee was adopted in each instance unless otherwise indicated.]

Report of Council on Medical Economics

The report of the Council on Medical Economics, together with the supplemental report, is recommended for approval.

Report of Committee on Public Relations

The report of the Committee on Public Relations, together with that portion of the supplemental report referred to this Committee, which includes a resolution commending Mr. C. Lincoln Williston and Mr. Bill Robertson, is recommended for approval.

Report of Committee on Tuberculosis

The report of the Committee on Tuberculosis, together with that portion of the supplemental report referred to this Committee, is recommended for approval.

Report of Committee on Industrial Health

The report of the Committee on Industrial Health is recommended for approval.

Report of Committee on Problems of Aging

The report of the Committee on Problems of the Aging is recommended for approval.

Report of Committee on Rural Health and Doctor Distribution

The report of the Committee on Rural Health and Doctor Distribution is recommended for approval. In addition, this Reference Committee urges the deans of our medical schools and those in charge of intern and resident training to advise medical students and young physicians as to the needs of the public for more practitioners in certain areas and in certain fields of practice.

Report of Council on Medical Education and Hospitals

Paragraph 1 pertaining to postgraduate teaching of physicians through the University of Texas; paragraph 2 pertaining to the work of the Private Clinics and Hospitals Association of Texas; and paragraph 3 regarding the work of the Board for Texas State Hospitals and Special Schools were approved by this Reference Committee as printed in the report of the Council on Medical Education and Hospitals. The remaining portion of the report dealing with the question of need for additional medical educational facilities was discussed and approved by this Committee. The supplemental report of the Council on Medical Education and Hospitals was also read and discussed and approved in its entirety.

Report of Committee for Liaison with Workmen's Compensation Insurance Companies

The report of the Committee for Liaison with Workmen's Compensation Insurance Companies was reviewed, and the Reference Committee was impressed with the results of arbitration proceedings as described in the report of that committee. The report of the Committee for Liaison with Workmen's Compensation Insurance Companies is recommended for approval.

Dr. W. H. Hamrick, Houston: Mr. Chairman, I would like to hear again the recommendation of this committee as to the one fee charge; will you read that recommendation of that committee again?

Dr. Lowry: I think that is a quotation; it begins here, reading from the report of the Committee for Liaison with Workmen's Compensation Insurance Companies:

"In the first case which actually completed the arbitration plan, we feel that the Bexar County Medical Society and in particular its grievance committee deserves particular commendation for the model way in which all details were handled. We are joined in this expression by the insurance company representatives, since they felt it would scarcely seem possible to conduct the review in a better way. In connection with this case, we feel that it would be instructive to quote from the summary of the Bexar County group:

> . . . the Board would like to point out that in almost all instances of disagreement in the above bills, the difference in opinions seemed to lay with the questions as to whether or not it was proper for the charges to be made for postoperative care. It is the opinion of this Board that such charges should be an integral part of the surgical fee and no additional charges should be made, and that in cases of multiple operations, the postoperative care should run concurrently."

Dr. Hamrick: I would like to have that amended to allow for complications. I think that should have been considered. If that is adopted, it means that the insurance carrier can carry it back to the county member and say that the State has said that you can charge only your original fee. If you get a phlebitis in a hernia, or a pulmonary embolus, and you are up night and day with it, they might be able to stick you with that, with the original ordinary fee. I think I will offer that as an amendment.

Dr. Sam N. Key, Jr., Austin: Dr. Hamrick, that is not a resolution but was merely a quotation from the Bexar County grievance committee. There is no recommendation, but it is merely recited. It is taken out of context, which makes it rather ambiguous. The basis for it is this: Given a case, for example, where a person sustained an injury which resulted in a broken femur, it was their feeling that the physician in charge of that patient rendering a fee should not render a fee for the operation which was performed to correct the fractured femur and then also a charge each day for care thereafter. That was one instance. In another instance, for example, an operation was done on the right leg on Monday and on Friday on the left leg and the bill was for operating on the right leg and operating on the left leg, as well as postoperative daily fees for care for both the right leg and care for the left leg.

I think the understanding is that our committee made no recommendation and no resolution but merely cited their summary as to what they felt and with which we agreed. There is no intent to prevent any doctor from rendering an additional charge for, as you say, a phlebitis or something of that sort. This is not a resolution that Dr. Lowry read but merely a quotation from a case that was arbitrated and the first one in Texas.

Dr. Hamrick: If that is the understanding of the reference committee, then I withdraw any objection.

Dr. Lowry: I move the adoption of this section of the report, Mr. Speaker. [Thereupon said motion was seconded and the same was duly carried.]

Presidential Address, Item 22

Item 22 in the President's speech was read and discussed. Special note was made of the desire for a committee to proceed with the preparation of a possible code, based upon the Wisconsin code, in collaboration with a similar group from the State Bar of Texas. The Committee recommends this portion of the President's speech for approval.

[EDITOR'S NOTE: The Board of Councilors as a reference committee also considered this item. See its report.]

Resolution: Interprofessional Relations Code

This resolution pertaining to an interprofessional relations code was considered and was unanimously recommended for adoption, with the following addition to item 2: "and that the Council on Constitution and By-Laws be authorized to make the necessary changes in the Constitution and By-Laws to accomplish this."

Report of Committee to Study Liaison with State Bar of Texas

The report of the Committee to Study Liaison with the State Bar of Texas was carefully considered and is recommended for approval with the following deletions:

Under "Recommendations," 1, paragraph b, that the words "state or" (first line of the paragraph) be deleted. The purpose of that is to bring any disciplinary action to a county level to be handled by the grievance committee rather than being handled on a state level.

Also that recommendations 2 and 3 be deleted in their entirety inasmuch as these have been covered and simplified in the foregoing resolution on interprofessional relations code.

Resolution: Automobile Safety

The resolution on automobile safety was discussed and approved.

Resolution: School Program on Eye Defects

This resolution pertaining to a school program for detection of eye defects was discussed in detail and is recommended for approval.

Presidential Address, Item 24

Item 24 of the President's speech pertaining to the relationships between physicians and lay-sponsored health groups was discussed and approved.

Resolution: Committee on Public Policy

The Travis County Medical Society resolution was discussed in great detail by the Committee and by members of the Association.

This Committee commends the Travis County Medical Society representatives for bringing the matter of lay-directed health organizations to its attention. The Committee feels that the subsequent discussions of this problem will prove to be profitable in similar matters that may arise in the future.

However, the Committee recommends disapproval of the resolution as presented by the Travis County Medical Society, and in its place substitutes the following:

The Reference Committee on Medical Service and Public Relations recommends to the House of Delegates of the Texas Medical Association that it reiterate the position of the House of Delegates of the 1956 session with reference to the administration of Salk vaccine. In effect that resolution indicated that Salk vaccine be treated as any other vaccine and be administered in regular channels.

The Committee calls attention of the House of Delegates to the action of the Executive Council, January 27, 1957, in approving the report of the Council on Medical Economics, reading, in part as follows:

> The Council on Medical Economics recommends that the President of the Texas Medical Association be authorized to request the presidents of the larger county medical societies, and any other county medical societies affected by any of the following prob-

lems, to set up active committees to investigate inroads into the private practice of medicine. These committees being directed to work in close liaison with the Subcommittee of the Council on Medical Economics to Study Contract Medicine and to report and circulate information concerning new problems coming to their attention in order to effect coordinated policy and control in relation to inroads on the practice of private medicine.

1. City, county and state health departments.
2. School health programs.
3. Military; Civil Service; Veterans Administration; and other Federal Agencies.
4. Contract practice of medicine.
5. City-county hospital practices.
6. Lay organizations, e. g., polio foundation, heart association, cancer groups, etc.

It is recommended by this Committee that a standing committee be established to be called "Committee to Study the Inroads into the Private Practice of Medicine" to act as an advisory committee to the Executive Council in all matters pertaining to infringements of the private practice of medicine.

Furthermore, we recommend that each county society avail itself of the experiences of other medical societies with reference to their relations with lay-directed medical groups or movements. Much information pertaining to these problems may be obtained through the central office of the Texas Medical Association.

Dr. Lowry: Mr. Speaker, I now move the adoption of the report as a whole. [Thereupon said motion was seconded and the same was duly carried and the report was adopted.]

Dr. Deaton: The Chair wishes to recognize Dr. Rouse for a minute.

Dr. Milford O. Rouse, Dallas: Dr. Speaker, your AMA delegates and alternate delegates met this morning, and looking at the number of resolutions you have presented with the probability we would take them on, we took on an extra rasher of bacon trying to get some strength for it. At one session of the AMA House one-fourth of all the resolutions presented came from Texas. We did not mind that, but they ribbed us a little bit about it. We would like to have permission if other resolutions are presented that contain the same intent as ours, that we might quietly support theirs and not necessarily present those from Texas. Speaking as an ordinary member of the House, I would like to move that on all resolutions instructing certain items to go to the AMA House, permission be granted that the wording be changed to say that we instruct our delegates to introduce or cause to be introduced the resolutions mentioned. [Thereupon said motion was duly seconded.]

Dr. Deaton: I think this will streamline the work of the AMA House somewhat. [Thereupon the motion was put to a vote.] The motion is adopted, Dr. Rouse. Thank you very much. The next item of business is the report of the Board of Councilors as a reference committee, Dr. Billups, chairman.

REPORT OF BOARD OF COUNCILORS AS REFERENCE COMMITTEE

[Presented by Dr. J. T. Billups, Houston, chairman, and adopted section by section.]

Presidential Address, Item 22

The Board of Councilors considered item 22 of the President's address concerning liaison with the State Bar of Texas and recommends approval of this section of the report with the additional recommendation that any code of this sort be studied by the Board of Councilors before being presented to the House of Delegates for action.

[EDITOR'S NOTE: The Reference Committee on Medical Service and Public Relations also considered this item. See its report.]

Report of Executive Secretary

Item 17 in the Executive Secretary's report, which has to do with liaison to county medical societies and related work, was reviewed. We recommend approval of this section of his report with commendation for the excellent work in this field.

The portion of the Executive Secretary's report dealing with the nomination of new inactive and honorary members was reviewed and will be submitted for action on the last day because of delays that occasionally occur in the reporting of such nominations by society officers.

Mr. Speaker, as a matter of explanation, some of the most irate members we have ever had to deal with were those that had been left off of the list of electing new inactive or honorary members. If you ever had to deal with one of those or some member of the society that wanted to put the blame somewhere else, you would not want to be in too big a hurry to close the list.

Report of Committee for Study of Health Costs

The report of the Committee for Study of Health Costs was considered at length. Concerning recommendation 1, the Board of Councilors recommends disapproval particularly since it is specifically forbidden by the Constitution and By-Laws of this organization to set fees.

In reference to recommendation 2, the Board of Councilors recommends disapproval on the basis that such mechanism for handling grievances is already provided in the structure of our organization.

Concerning recommendation 3, which has to do with educating the profession concerning health insurance, the Board of Councilors recommends approval.

Dr. Billups: I move adoption of the report as a whole. [Thereupon said motion was seconded and duly carried and the report was adopted.]

Dr. Deaton: The next thing on the agenda is the report of the Board of Trustees as a reference committee, Dr. Robert Kimbro, chairman.

REPORT OF BOARD OF TRUSTEES AS REFERENCE COMMITTEE

[Presented by Dr. R. W. Kimbro, Cleburne, chairman, and acted on section by section. The recommendation of the reference committee was adopted unless otherwise noted.]

The Board of Trustees met as a reference committee during the morning and a good portion of the afternoon, and after hearing testimony on most issues, it offers the following report:

Report of Committee on Patient Care and Supplementary Report of Committee on Patient Care

The Board of Trustees has read with interest these reports, and it commends members of this committee for its diligent efforts and accomplishments during the past year.

Report of Appointees to Texas Commission on Patient Care

The report of these appointees was incorporated in the Report of the Committee on Patient Care of the Texas Medical Association.

Presidential Address, Item 16

The President has suggested that the House of Delegates or the Board of Trustees provide $1 per member per year for the financial support of the Texas Commission on Patient Care. The Board of Trustees finds itself unable to grant this request for the following reasons:

1. The 1957 budget does not provide an adequate reserve to meet this new request for $7,600. As the Board of Trustees reported last night in its supplementary report, the present budget provides a cushion of only 2.5 per cent in operating funds to meet adjustments, emergencies, and additional requests which might be received in the months ahead.
2. In 1956, the Board of Trustees provided more than $7,500 in support to the commission in salaries, office space, and general administration assistance. This is a far larger amount than has been granted, for example, to any council or committee of the Texas Medical Association.
3. Individual physicians and clinics throughout the state have not responded as favorably as had been hoped to a direct appeal for funds by the commission. The Board of Trustees does not feel justified in continuing to spend dues dollars to underwrite a program which has not attracted the individual support of our members.

In view of these considerations, the Board of Trustees offers a positive recommendation. Earlier this year, the Board of Trustees appropriated an additional $2,000 to the commission in the 1957 budget. The Board stipulated that this allocation should be used for public education and for a fund raising program designed to make the commission self-sustaining. This appropriation of $2,000 has not been utilized by the commission as yet. The Board respectfully suggests that the commission use these funds to good advantage in developing long-range financial support.

Report of Committee on National Emergency Medical Service

Recent floods and tornadoes in this state have reflected the importance of medical participation in civil defense programs. The Board of Trustees commends the Committee on National Emergency Medical Service for taking an active role in "Operation Rebound" last month.

Supplementary Report of Executive Secretary, Section 4

The Board of Trustees commends the headquarters staff for its productive efforts in supplementing the second and third largest sources of revenue for the Association [advertising in the *Journal* and exhibit space at the annual session].

Supplementary Report of Committee on Public Relations

The Committee on Public Relations has recommended a budget of $1,200 to $1,500 for the Association's third annual Public Relations Conference in September. Public relations conferences sponsored in Austin during the past two years have been extremely well attended and well received. These conferences deserve continuing financial support. However, as has been pointed out previously in this report, it will be necessary for the Board of Trustees to guard expenditures carefully. In substance, the Board looks with favor upon this request, even though it may be necessary to curtail somewhat the amount of the request.

Supplementary Report of Committee on Tuberculosis and Presidential Address, Item 15

The Committee on Tuberculosis has recommended that the House of Delegates authorize an expenditure of not more than $5,000 over a two-year period. These funds would be used to help defray the expense of a complete recodification of the tuberculosis laws of the state.

The Board of Trustees regards this request as an extremely worthy one deserving the support of the Texas Medical Association. Most certainly if medical societies do not support projects of this kind, leadership in positive medical programs rightfully can be expected to pass to voluntary health agencies. The Board regretfully reports that funds in the Association's general operating fund are not adequate at this time to make a positive commitment. However, the Board will not close the door on this request, and we suggest the following possibilities at this time:

1. The Board will consider making available a comparable amount of legal services, to carry out the recodification of the tuberculosis laws.
2. The Board of Trustees will encourage private financial support, similar to that which was provided for the mental health consultation by Dr. Gerty.

If these alternatives do not materialize, the Board of Trustees will be pleased to consider this financial request again later this year.

Report of Committee on Scientific Exhibits

The Board of Trustees was pleased to note that more than 40 scientific exhibits are being displayed here in Dallas. This is almost triple the number of scientific exhibits at the 1955 annual session. The Trustees also had an opportunity to study these exhibits in an inspection this afternoon. The exhibits have been properly titled "The Showcase of Texas Medicine," and they reflect great attainment in scientific endeavor. The Board of Trustees extends its most sincere congratulations to the committee for a job well done.

Resolution: Veterans Administration Hospitals

The Board of Trustees found itself much in sympathy with the objectives of this resolution, and it wishes to commend Dr. Hamrick for bringing an extremely important issue to the attention of the House of Delegates. The Veterans Administration hospital and medical program has grown tremendously in the past two decades. Back in 1934, the VA hospitals had fewer than 45,000 operating beds, and the annual cost of the program to the taxpayers was $37,000,000. Now the VA has 123,000 beds in its 170 hospitals, and the budget has reached a staggering $790,000,000 annually. The most disturbing feature is the fact that this program has expanded primarily to provide care to veterans with non-service-incurred disabilities. Approximately 83 per cent of the patients being discharged from VA hospitals have been treated for non-service-incurred disabilities.

The Board of Trustees feels it is necessary to disapprove this resolution in view of legal questions raised concerning the operation and control of government hospitals. The Medical Practice Act of Texas provides certain exemptions for doctors practicing in government hospitals. In addition, certain functions carried on by government institutions are exempt from the Medical Practice Act of this state.

In view of these legal considerations, and with the consent of the author, the Board of Trustees wishes to offer the following substitute recommendations:

1. That the President of the Texas Medical Association be requested to appoint a special committee to initiate a continuing study on non-service-connected cases in VA hos-

pitals in this state, and that the committee recommend a course of positive action;

2. That the Council on Constitution and By-Laws consider amending the By-Laws to create a standing Committee on Military and Veterans Affairs.

Mr. Speaker, I move the adoption of this portion of the report.

Dr. L. B. Johnson, El Campo: Didn't we have a recommendation about that by the Reference Committee on Medical Service and wouldn't this fall under that jurisdiction?

Dr. Deaton: Dr. Johnson, are you referring to a previous committee report?

Dr. Johnson: In our Reference Committee on Medical Service and Public Relations I believe it was recommended that a committee be established to act as an advisory committee to the Executive Council concerning this type of practice and infringement and therefore if a board were set up under this recommendation there would be duplicate boards.

Dr. Deaton: I believe this is what you have reference to, Doctor; this is in the report of Dr. Lowry's committee: that a standing committee be established to be called a Committee to Study the Inroads into Private Practice of Medicine.

Dr. Johnson: I have reference to that, yes. I would think this reference committee recommendation before the House would duplicate that.

Dr. Deaton: I believe that the VA was specifically mentioned in that report, if I recall.

Dr. Johnson: In our report it was.

Dr. Deaton: Yes, I believe that is correct.

Dr. Denton Kerr, Houston: We have about three committees in the course of the evening that I believe could be consolidated. I believe Dr. Johnson is right. I would like to recommend that the Committee on Resolutions take these three resolutions recommending new committees and see if they can't be consolidated into one committee and report to us at our next meeting. One reason we can't get through with our business now is because we have too many committees, and now here we are getting more committees still.

Dr. Kimbro: I believe that is a very good idea. I began to be fearful myself that we were overloading ourselves when I was sitting here tonight listening to the recommendation as to the formation of these committees. I would like to leave one word in, however, Doctor, and that is this, "that this be an active committee." I think all of these items, not only this but the items previously mentioned, could well be considered with one committee but that this committee should be appointed with our incoming President and begin an active and vigorous approach to these problems immediately.

Dr. Kerr: If you will adhere to my recommendation I promise you it will be an active committee.

Dr. Kimbro: Then we would modify this to include this committee in the previous committee.

Dr. Deaton: Since it has already been included in the previous committee we will take no action on it, if that is satisfactory. Are there any objections to that? If not, you will proceed, Dr. Kimbro.

Medicare

Under the topic of Medicare, the Board of Trustees considered item 25 in the address of the President, item 1 in the supplementary report of the Executive Secretary, and the resolution opposing Medicare introduced by Dr. Homer Prince of Houston.

The Board of Trustees profited greatly by a lengthy but extremely informative discussion on all aspects of Medicare. Statistical information and administrative developments were reported by representatives of Blue Shield of Texas, and by a representative of the Office of Dependents Medical Care in Washington. All physicians present had an opportunity to express their philosophy.

It is evident to the Board of Trustees that the Medicare program in Texas is being administered very efficiently. Cooperation extended to the Texas Medical Association and to Blue Shield by the Office of Dependents Medical Care has been excellent. The Committee on Medicare of the Texas Medical Association has performed a valuable role in adjudicating claims. The Board particularly would like to commend our fiscal administrator, Blue Shield, for rendering outstanding service to the doctors of this state in processing and paying their claims.

After carefully evaluating all testimony, and on the basis of its own experience in representing the Texas Medical Association on all policy matters pertaining to Medicare, the Board of Trustees offers these recommendations:

1. The Board recommends that the present contract with the Department of the Army be extended until January, 1958. At that time, the Medicare contract should be thoroughly reevaluated, and then renegotiated with the Department of the Army.

2. The Board recommends that the resolution submitted by Dr. Prince be disapproved, and that the Texas Medical Association continue to participate in Medicare under the administrative atmosphere which presently exists.

The Board of Trustees recommends adoption of this portion of the report.

Dr. J. H. Wooten, Columbus: How do you plan to handled it on January 1?

Dr. Kimbro: We are asking now that the Board of Trustees as a negotiating agent study this thing and renegotiate it in January on January first. If you don't want us to do it, now is the time to vote it down.

Dr. Wooten: The Board of Councilors tonight has brought out that it is against the Constitution and By-Laws of our body to set fees. I would just like to ask the chairman of the Board of Trustees how do you plan to negotiate a contract if you don't have the power to set fees?

Dr. Kimbro: The Board of Trustees feels it was given the prerogative to negotiate fees by the meeting of the called session of the House of Delegates in Austin. Until the House of Delegates revokes that we feel that is still the opportunity we have.

Dr. Wooten: By the action of the House of Delegates we apparently changed our Constitution and By-Laws, is that right? Point of order, Mr. Speaker—I have waited six months for this and I want you to answer that.

Dr. Deaton: Doctor, we have not changed any Constitution and By-Laws. It is obvious that that can't be done without being introduced and laying over a year. Now I don't have any more power in this matter except as Speaker of the House, but it is my understanding that the Board of Trustees was empowered by the House of Delegates in Austin to take charge of this matter and to act as our negotiating agent and in so doing they had to take care of such little details as fees and what have you.

Dr. Wooten: I understand, Mr. Speaker, but this is a matter of interpretation of the Constitution and By-Laws and I want to get your statement now. Did we change our Constitution and By-Laws when we gave the power to the Trustees to negotiate and to set fees for us?

Dr. Deaton: Now you were there.

Dr. Wooten: I know. This is a loaded question and I know why I am asking it.

Dr. Deaton: Did we change the Constitution and By-Laws, you say?

Dr. Wooten: Yes, did we change our Constitution and By-Laws?

Dr. Deaton: We made an exception. If you want to carry that to the Supreme Court, that's all right.

Dr. Wooten: This is the Supreme Court, Doctor.

Dr. Deaton: Doctor, I am going to have to call you to order. We are getting a little out of order here.

Dr. Wooten: This is a serious question. I don't mean to be out of order but I want to know—

Dr. Deaton: I mean, if you want to discuss it personally, we will have to retire, but make your speech, Doctor.

Dr. Wooten: I believe we have come to the point that we of the House of Delegates must decide whether we are going to change our Constitution and By-Laws and empower the Board of Trustees to set fees or whether we should not. That's the point.

Dr. Kimbro: I would like to say one thing about fees in response to that. In our interpretation of that we are not setting fees. One charges the usual and customary fees in his community under Medicare. The fees that were set and that were published for all members of the Texas Medical Association were the maximum fees that would be paid for such services by the Office of Dependents Medical Care. These are not necessarily fees that you or I individually will have to abide by at all. If I do not choose to participate under this program, I do not necessarily have to participate under it, and if I want to charge less than these fees, that is also my business to do so. The fees that are set are the maximum amount that will be paid for any such procedure under this program.

Dr. Deaton: May I interrupt you for just a moment there, Dr. Kimbro—I want to read the Constitution and By-Laws, if I may, from page 40, starting at the semicolon there at the top of the page where it says [Chapter X, Section 24]: "but no official action shall be taken by component county societies establishing a fixed schedule of fees for the medical, surgical, and special services of its members, provided that this By-Law shall not be so construed as to prevent the discussion of such matters as service and charges therefor (and that is what we are doing) or unofficial agreement between physicians as such rather than as members of component county societies, as to what charges would be proper for such services." That is all that I can recall in the Constitution and By-Laws about fees. Does that satisfy you, Dr. Wooten?

Dr. Wooten: No, sir.

Dr. Deaton: Well, my room is 1205. Come up and we will talk about it later.

Dr. F. W. Yeager, Corpus Christi: I am wholeheartedly against the principle of Medicare, but we voted this thing in and I think we would look rather foolish to say we have just changed our minds at this time. So far as this business about changing the Constitution, it does not affect the Constitution at all. There is nothing in the Constitution affecting fees. They set the fees and our Board of Trustees negotiated with them and got those fees raised a little bit and got the best possible deal we could. I don't think any man in this room would object to any group calling on the Blue Cross or Blue Shield or Bankers Life or any of them and try to get them to raise what they will pay. The only difference is this thing says you have to do this and this is all we will pay. We voted that in.

I think it would be far better to go along with this much of this proposal that the government has requested, that we let this ride until January 1. As I understand it, the contract is up June 30, but they want it to ride until January 1 so they can get their accounting and size the thing up and see what it is costing them and how it is working out for them. Instead of giving the Board of Trustees power to negotiate this in January, they would have to have a vote of the Executive Council, and I think that not only is giving the Executive Council a little too much authority but is placing too much responsibility on them. Whatever is done then they go back and catch hell from the constituents whichever way they want, but it would be perfectly in order if we go along with them until January 1 and then they go along with us until the next June 30 on the same basis without any negotiations at our request. We then can have facts and figures and see how the thing is working out, and everything can be put up before the next House of Delegates and then be negotiated and either turned down or accepted on the basis of figures and not just how we might individually feel about it.

Dr. Mal Rumph, Fort Worth: The first thing, I would like to ask a few questions about the date. It was my understanding in our called meeting in Austin that this House voted to carry Medicare contracts until this meeting. Nothing was said about it being indefinite. It was said we will discuss it then about renegotiating. Now I want to ask another question about the time. I have been gone from my office for a week, but the last Washington newsletter from the AMA office said nothing about January 1. That newsletter said there would be no renegotiations with any state medical association until June, 1958. What sort of contract do we have when the other side can change the conditions at will?

Dr. Kimbro: On the date of March 5, 1957, the American Medical Association mailed out information regarding the renegotiating of the Medicare program. They pointed out that the Dependents Medical Care officials requested an extension because of administrative purposes to January, 1958, and set a tentative schedule of meetings with states beginning in January of 1958 for renegotiation. It is the prerogative, I am sure, of this House to deny that request and discontinue Medicare as of this date if it is the will of this House of Delegates.

Dr. Rumph: I feel that the motion put to the House should contain that and not other recommendations. I mean just one question to be decided at one time.

Dr. Deaton: The question before the House is that they recommend that the present contract be extended until January, 1958.

Dr. Kimbro: That is what we are asking for now. I will re-read for you paragraph 1 (reading) and that is the recommendation we made in paragraph 1.

Dr. Rumph: Would that entail designating the Trustees acting at that time or would the House have to act?

Dr. Kimbro: I am sure the House would do as they see fit. This merely recommends that the present contract with the Department of the Army be extended until January, 1958, and at that time the contract should be thoroughly reevaluated and renegotiated with the Department of the Army.

Dr. Rumph: At which time the House would not be available.

Dr. Deaton: The Board of Trustees, as I understand it, has already been appointed by the House of Delegates as our negotiating agent and that is a continuing thing.

Dr. Rumph: For that one time only. As we kept hammering in September, it would be a matter to be carried until now, and as I understood it, and the rest of us who got defeated, I grant you, it would be carried until our next meeting.

Dr. Deaton: This is our next meeting.

Dr. Rumph: Then if you extend it to January, to when we don't have a meeting, that is just beating around the bush.

Dr. Kimbro: The Board recommends that the present contract with the Department of the Army be extended until January of 1958 and that part of the recommendation can be voted down if the House of Delegates so desires. Part 2 is separate and distinct from that and I am sure the House of Delegates can vote on that if they so desire as a separate matter.

Dr. Deaton: Is there any other discussion?

Dr. Frank Kidd, Dallas: Mr. Chairman, I only want to say one thing and that is I think Dr. Rumph has a very correct approach to this. We realize that the Board of Trustees has a real responsibility in what they are attempting to do, but at the same time when we accept this Medicare program for one year, it is now being brought up and the Board of Trustees is asking that that be extended until January 1 of 1958, is that right?

Dr. Kimbro: That's right.

Dr. Kidd: I can also see what Dr. Rumph's side of it is. The House will have no way of acting on that at all. It will be a function of the Board of Trustees alone, and I think in all fairness to this House this matter might be extended until this annual meeting of next year. Let the Board of Trustees come in with their recommendation to give to the House of Delegates and let them have an opportunity to have a rescinding vote or have some expression of their own on it. Since we entered into this Medicare agreement, that is, the House of Delegates as such, the official agreement was placed in the Board of Trustees as a bargaining agent with the federal government. I think it is only fair that the House of Delegates should have the power of having the contract negotiated at the time of our annual session one year hence.

Dr. Kimbro: That would be quite satisfactory with them. In conversation with them we will set a date that is satisfactory to us. We set the earliest possible date in 1958 so it could be considered at the earliest possible moment. I feel sure that the majority of the House of Delegates realizes that the Board of Trustees does not make decisions without full discussion with the House of Delegates in any matter of this serious import.

Dr. Deaton: Is it satisfactory that we change the date from January as suggested by Dr. Kidd—what was your date, Dr. Kidd?

Dr. Kidd: The date of the next annual session.

Dr. Deaton: Is there any objection to that? Are you ready to vote—all those in favor say aye—those opposed—the motion is carried.

Dr. John F. Thomas, Austin: Now, Dr. Speaker, as to the action just previous which dealt with the numerous committees to study the inroads into medical practice, I am not quite clear what happened to that. Was that referred to the Reference Committee on Resolutions and Memorials to be reported back at the next session on Wednesday.

Dr. Deaton: Well, we have been working pretty fast here, but as I recall it no action was taken because previous action had been taken in this other committee as pointed out by the doctor back there, and that included the VA and other agencies as well.

Dr. Thomas: I thought Dr. Kerr had made a motion referring that to a reference committee.

Dr. Deaton: I have not referred it to anyone yet; I think that has been taken care of, Dr. Thomas. [Discussion with Dr. Thomas aside.] Thank you very much, Doctor. Now we were going to vote on the adoption of the entire report, was that it?

Dr. Kimbro: I move the adoption of the report as a whole, Mr. Speaker. [Thereupon said motion was seconded and the same was duly carried.]

Dr. Deaton: The report is adopted, Dr. Kimbro. That brings us down to the place where we usually stop and it is 11 o'clock. Are there any announcements? I believe that brings us about to the close. Do I have a motion to adjourn? [Thereupon a motion was made, seconded and carried to adjourn, and the meeting was adjourned at 11 p. m.]

Monday, Tuesday, and Wednesday, April 29 and 30 and May 1, 1957

GENERAL MEETINGS

[The first general meeting of the Texas Medical Association annual session was opened at 10 a. m., Monday, April 29, 1957, in the Regency Room of Hotel Adolphus, Dallas, with the President, Dr. Milford O. Rouse, Dallas, presiding.]

[After the invocation by the Rev. John Lee Harris, pastor of Lakeside Baptist Church, Dallas, Dr. Rouse delivered his presidential address, "Spiritual Allies in Medicine," which is published in the original article section of this *Journal*.]

Introductions

[Dr. Rouse then introduced Mrs. Oscar M. Marchman, Jr., Dallas, president of the Woman's Auxiliary to the Dallas County Medical Society; Dr. Glenn D. Carlson, Dallas, president of Dallas County Medical Society; Dr. Ridings E. Lee, Dallas, chairman of the Committee on General Arrangements for the Annual Session; Mrs. H. S. Renshaw, Fort Worth, President-Elect, Woman's Auxiliary to the Texas Medical Association; and Dr. Denton Kerr, Houston, President-Elect of the Texas Medical Association.]

[He also recognized the specialty societies and other groups that were cooperating toward the success of the annual session by meeting in conjunction with it or sharing in the sponsorship of guest speakers or both. These included: Texas Air-Medics Association, Dr. Charles W. Klanke, Houston, president; Texas Chapter, American Association of Public Health Physicians, Dr. W. V. Bradshaw, Jr., Fort Worth, president; Texas Chapter, American College of Chest Physicians, Dr. Walter C. Brown, Corpus Christi, president; Texas Dermatological Society, Dr. Thomas L. Shields, Fort Worth, president; Texas Diabetes Association, Dr. Edwin L. Rippy, Dallas, president; Texas Geriatrics Society, Dr. Wendell D. Gingrich, Galveston, president; Texas Heart Association, Dr. D. D. Warren, Waco, president; Texas Industrial Medical Association, Dr. V. C. Baird, Houston, president; Texas Neuropsychiatric Association, Dr. John L. Otto, Galveston, president; Texas Ophthalmological Association, Dr. Thomas J. Vanzant, Houston, president; Texas Orthopedic Association, Dr. John J. Hinchey, San Antonio, president; Texas Society of Anesthesiologists, Dr. Charles R. Allen, Galveston, president; Texas Society of Gastroenterologists and Proctologists, Dr. John McGivney, Galveston, president; Texas Society of Pathologists, Inc., Dr. Lloyd R. Hershberger, San Angelo, president; Texas Society of Plastic Surgeons, Dr. Thomas D. Cronin, Houston, president; Texas Traumatic Surgical Society, Dr. Russell Holt, El Paso, president; Conference of City and County Health Officers, Dr. Henry A. Holle, Austin, chairman; Fourth District of Texas Chapter, American College of Surgeons, Dr. Harry M. Spence, Dallas, president; Society of Life Insurance Medical Directors of Texas, Dr. C. Frank Brown, Dallas, president; Southwest Regional Conference on Aging, Dr. H. B. Mulholland, Charlottesville, Va., chairman, American Medical Association Committee on Aging; Texas Chapter, American Academy of Pediatrics, Dr. Max R. Woodward, Sherman, state chairman; Texas Division, American Cancer Society, Dr. G. V. Brindley, Temple; Texas Pediatric Society, Dr. Edward M. Wier, Fort Worth, president; Texas Physical Medicine and Rehabilitation Society, Dr. Odon F. von Werssowetz, Gonzales, interim chairman.]

[It was noted that Mrs. Robert Flanders, Manchester, N. H., President of the Woman's Auxiliary to the American Medical Association, scheduled to bring greetings, was unable to be in Dallas that day because of conflicting engagements but would attend the latter part of the annual session.

Greetings were extended by Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., president of Southern Medical Association, and Mrs. O. W. Robinson, Paris, president of the Woman's Auxiliary to Southern Medical Association.]

[Then followed a report from the President of the Woman's Auxiliary to the Texas Medical Association, Mrs. Richard C. Bellamy, Liberty:]

Report of President of Woman's Auxiliary to Texas Medical Association

The Woman's Auxiliary is dedicated to one purpose—to fulfill the requests of the Texas Medical Association. To do this, our First Vice-President, Mrs. Harold Lindley of Pecos, has worked diligently, and we are proud to report a membership of 5,162, with representation in all 115 auxiliaries.

It was my pleasure to make 96 visits with county auxiliaries and 5 districts. It was a revealing experience to see the tremendous job these groups are doing.

This has been a year of Auxiliary firsts. We began with a complete packet of project outlines, suggestions, booklets, and lists of sources of program material for each county auxiliary president, and she was asked to familiarize herself with this information and distribute it to the chairmen of the respective projects. The dividends of this packet have been excellent and will be continued next year.

Three special committees were also firsts, Science Fairs, Health Fair, and Safety and Rehabilitation. There is no possible way to measure the good that will result from these projects.

The response to the Science Fairs has exceeded our greatest expectations. Teachers, parents, students, and industry have expressed gratitude to auxiliaries for their sponsorship. Reports are still coming in, but we know 2,127 exhibits were displayed at these fairs in Texas by students we hope will be tomorrow's scientists. We hope that some of the local winners which we have sponsored to the National Science Fair in Los Angeles in May will bring back awards.

The Health Fair, now in progress at the Dallas Health Museum at Fair Park, speaks for itself. Mrs. Jackson H. Speegle, the chairman, has left no stone unturned to make this an outstanding success. It truly glorifies our theme for the year of "Health Education and Community Service." Dr. Rouse will be particularly interested to learn we are trying to set an example for the public, and reports show 8,582 physical examinations of doctors and their families.

Auxiliary members have been quick to seize the project of Safety and Rehabilitation. GEMS, a program of training for baby sitters, teen-age driving lessons, the installation of traffic signs—these are but a few of the measures taken by auxiliary members.

We are grateful to the Texas Medical Association Committee on Public Relations for its suggestion that the Auxiliary be allowed exhibit space at this annual meeting to dramatize our projects. We hope you will visit this exhibit on the mezzanine of the Baker Hotel. It was designed and constructed by Mrs. John Welty and Mrs. John Kuppinger of the Cameron-Willacy Auxiliary. We think it tells part of our story.

One of the most rewarding and gratifying firsts was the sale of the specially designed Christmas card to aid the American Medical Education Foundation. In spite of the late start of promotion, our profit, thanks to many of you, was $1,800 from the sale. This has encouraged us to repeat the project, and the new design for the 1957 card is on display at our exhibit at the Baker Hotel.

You will agree that *telephone, telegraph,* and *telewoman* are three reliable means of communication. All have been employed to keep our membership informed on health and medical legislation. Poll tax and election campaigns, contact with legislators by letter and in person, panel discussions with lay groups, all were a part of the strategy. One auxiliary provided its 748 members with a legislative handbook to serve as a guide of who, what, where, when, and how to contact governing officials.

We recognize public relations is a part of everything we do. The multitude of activities in which our members actively participate is endless. Auxiliary speakers' bureaus provide authentic health programs for lay groups. We also point to such programs as that of one group which invites the wives of medical students to a special meeting on "How to Be a Doctor's Wife" and another that has indoctrination for new members. Doctor's Day is increasingly more popular, and auxiliaries are ingenious in marking the occasion. Members have accepted the challenge of promoting the use of the American Medical Association's radio transcriptions. Lay listeners have been appreciative of this reliable health information.

The mental health project recognizes the needs of each age group. One auxiliary was the main financial support of a children's shelter; there were gifts of love to residents in a home for the aged. Entertainment and training in grooming were provided inmates of girls' correctional schools. Personal shopping was one service provided hospital patients.

It was our hope that our efforts for the recruitment of nurses would eventually alleviate your need for trained assistants. At present there are more than 170 Future Nurses Clubs, 40 of which were organized this year, and there are over 5,000 members. Auxiliaries report more girls entering nurses' training as a result of their club participation, and some are taking advantage of the $8,000 in loans and scholarship gifts provided and administered by county auxiliaries. The third annual convention of the Texas Association of Future Nurses, of which the Auxiliary is one of the sponsors, was held in San Antonio on March 30 with over 1,000 future nurses and their club sponsors in attendance. It was emphasized there the good that had resulted from the Auxiliary workshop for sponsors which had been held previously.

We accomplished our record goal of $10,000 for the American Medical Education Foundation. The Christmas card, silver teas, auctions, memorials, and appreciation gifts resulted in county contributions of $9,400. Yesterday the Board voted to supplement this to make the $10,000.

I would like to review our philanthropic funds, which are unique. Almost $500 has been reported to aid the Memorial Library at the Association. Two loans have been granted this year from the Student Loan Fund, which is for juniors and seniors in Texas medical schools and interns and residents. We hope to aid more in the future. The Memorial Fund provides love gifts for widows and dependents of Association members.

These have been only the highlights, but we want you to know that none of this would have been possible without your support and interest. We are grateful to the Association for the dollar per member which makes it possible for us to continue to expand our program. We also appreciate having Miss Hazel Casler, our Executive Secretary, who has been my Gal Friday.

To Dr. Rouse, the Board of Trustees, the entire Association staff, we extend our sincere thanks for helping the Auxiliary toward the goal of providing "Health Education and Community Service" in support of our husbands, our "Partners in Health."

[Next Dr. F. J. L. Blasingame, Wharton, member of the Board of Trustees of the American Medical Association, presented a report on that organization, "Things of Good Report."]

[Concluding the meeting was an address by Dr. Warren H. Cole, Chicago, "Recent Trends in Surgery of the Gallbladder and Common Duct."]

[With Dr. Milford O. Rouse, Dallas, President of the Texas Medical Association, presiding, the second general meeting of the 1957 annual session opened at 10 a. m. Tuesday, April 30, in the Regency Room, Hotel Adolphus, Dallas.]

[Two addresses, "How to Avoid 'Greetings' from the Tissue Committee for Your Gynecologic Surgery" by Dr. Roger B. Scott, Cleveland, Ohio, and "The Cystic Ovary—Surgical or Non-Surgical?" by Dr. John R. Schenken, Omaha, Neb., opened the program.]

Scientific Exhibit Awards

[Following these talks, Dr. Rouse announced the winners of scientific exhibit awards as follows:]

[First place in the "individual" division, Drs. J. Walter Park, III, S. J. Greer, and Francis E. O'Neill of San Antonio for their exhibit on "Intrathoracic Vascular Anomalies Causing Tracheal Obstruction"; second place, Dr. Jasper H. Arnold, Houston, "Importance of Bacteriologic Methods in Diagnosis of Urinary Tract Infections"; and honorable mention, Drs. Dale J. Austin and Jesse E. Thompson, Dallas, "Surgical Management of Popliteal Aneurysms."]

[In the "special individual" division (exhibit by individuals but with special assistance from an institution or agency), first place, Drs. Robert R. Shaw, Donald L. Paulson, and John L. Kee, Dallas, for "Bronchiogenic Carcinoma"; second, Drs. Francis M. Spencer, San Angelo, and Lee S. Monroe, La Jolla, Calif., "Color Photomicrographs in Teaching Recognition of the Intestinal Parasites"; and honorable mention, Drs. Charles L. and James A. Martin, Dallas, "Is Radium Still Needed for Cancer Therapy?"]

["Institutional" exhibits, first, Scott and White Clinic, Temple, Drs. N. C. Hightower, A. C. Broders, Jr., R. D. Haines, A. W. Sommer, and J. F. McKenney, "Chronic Ulcerative Colitis—Diagnostic and Therapeutic Considerations"; second, Southwestern Medical School of the University of Texas, Department of Surgery, Dallas, Drs. Ernest Poulos and Ben Wilson, "Management of Vascular Injuries in a Civilian Hospital"; and honorable mention, Hermann Hospital, Houston, Drs. Henry Goodwin Glass, George W. Waldron, and Wilson G. Brown, "Cancer in Thyroid Diseases."]

[Then followed two additional addresses, "Diagnosis and Management of the Edematous Patient" by Dr. Laurence B. Ellis, Boston, and "Chronic Ulcerative Colitis" by Dr. Calvin M. Smyth, Abington, Pa. The meeting concluded at 12 noon.]

[The third general meeting of the Texas Medical Association began at 10 a. m. Wednesday, May 1, 1957, in the Regency Room, Hotel Adolphus, Dallas, with the President, Dr. Milford O. Rouse, Dallas, presiding.]

[Four addresses were presented as follows: "Care of the Aged Infirm—Planning for the Future," Dr. Wilson G. Smillie, New York; "Ophthalmologic-Optometric Relations," Dr. A. D. Ruedemann, Sr., Detroit; "Auto-Crash Injury Research (motion picture)," Dr. Preston A. Wade, New York; and "Physiologic and Diagnostic Significance of Some Common Signs and Symptoms," Dr. John B. Hickam, Durham, N. C.]

[The meeting ended at 12 noon.]

Wednesday, May 1, 1957

MINUTES OF THE HOUSE OF DELEGATES —THIRD MEETING

[The House of Delegates of the Texas Medical Association convened at 8 a. m., Wednesday, May 1, 1957, in the Ballroom of the Baker Hotel, Dallas, with Dr. Hobart O. Deaton, Fort Worth, Speaker of the House, in the Chair.]

Dr. Deaton: Will the House please be in order. Has the chairman of the Credentials Committee a report for the House?

Dr. Drue Wate, Fort Worth: We have 78 present.

Dr. Deaton: The chairman of the Credentials Committee reports a quorum present.

We will now have the invocation by Dr. Pickett and will you please stand?

Dr. B. E. Pickett, Cartizo Springs: The Divine Providence that is God, our Father, we thank Thee in that we can approach the throne of that Divine Grace, coming in the name of Jesus, giving thanks to You, that in due time Your Son, Jesus, died as a Savior of men. We request our Father, with great humility, that upon this group of men as we deliberate here today—that what we do will please Thee and cause us to reflect the fact that we represent a great group of people. Then, we pray that in our deliberations Thou wilt guide us. Abide with us this day and we ask for it through the name of Jesus. Amen.

Dr. Deaton: We have one or two little items that we need to dispose of before we take up our regular order of business for this final session. The first thing is that we have a distinguished guest, who is to speak to us for just a few moments. Dr. Rouse, will you escort Mrs. Flanders to the stand. Mrs. Robert Flanders of Manchester, N. H., President of the Auxiliary of American Medical Association.

Address of President of Woman's Auxiliary to American Medical Association

Mrs. Flanders: I am delighted to be here to represent our National Auxiliaty and to bring greetings from over 75,000 members.

I am really happy to visit Texas for many reasons because many things have been straightened out in my mind. You know, you have the reputation of bragging. Since I have been here I have found that everything I had heard about Texas is right; and I am going back home to New Hampshire and tell my friends there that you don't brag enough.

You, as a body, I figure ought to be congratulated on your Auxiliary. I know, without your support, moral and financial, that it would not be the outstanding Auxiliary that it is.

"Health Is Our Greatest Heritage" is my theme for this year, and our aim is to help preserve this heritage of everyone in our nation. How are we doing this?

Ever mindful that the Auxiliary is the best equipped organization to act in behalf of community health, every individual member has been guided in her assigned duties by the knowledge that "Health Is Our Greatest Heritage."

The Woman's Auxiliary this year is dedicating itself to an over-all safety program. The program is designed to prevent accidents. Again, the Auxiliary was motivated in this action to promote an understanding that health is our greatest heritage.

The Woman's Auxiliary also acknowledges it must grow in number to keep up with its many varied tasks. The Auxiliary is fully aware that too few on the job would result in too little of the task being accomplished. Therefore, the Auxiliary as a united force and through individual participation and effort continually is adding to its number so that this nation's health heritage will not be forsaken and fotgotten. Our aim is to have every physician's wife a member of our Auxiliary.

This year we changed the nurse recruitment committee to "recruitment." We realize there are many fields allied to medicine where there is a shortage of personnel. We are encouraging the auxiliaries to expand their recruitment program and offer their scholarships and loans to young people

entering other fields allied to medicine, such as physical therapists and medical technicians. Do you realize there are 156 careers allied to medicine?

During the past few years almost every auxiliary has given scholarships and loans to young people entering the field of nursing. Last year, $42,475 was given in loans; scholarships totaled $100,876; for nurse's graduate study $3,050; and for practical nurses $1,929, making a total of $148,331.

Many of the national organizations have asked for an official representative from our Auxiliary—American Heritage Foundation, National Safety Council, Committee on Careers, American Diabetes Association, Women's Division of the Citizen's Committee for the Hoover Report, as well as many others. We feel that this shows that we are really recognized as an influential organization.

We encourage all the members to study the bills introduced in Congress pertaining to medicine and public health and to know which bills should be passed, which shouldn't, and why.

We also urge all our members to help with mental health programs, to work in civil defense, and to participate in drives for health agencies such as the American Cancer Society and National Foundation for Infantile Paralysis.

It is the desire of the Woman's Auxiliary to the American Medical Association to continue our work, to increase our work, and to better our work. Your Auxiliary is willing and anxious to help you at all times. We consider it an honor to work with you and for you. Please call on your Auxiliary.

Dr. Deaton: Now, we can understand why the Auxiliary gets things done. Dr. Pickett has just a word that he wants to say.

Dr. B. E. Pickett, Carrizo Springs: Forty-two years ago the society of our county elected me and sent me as a delegate to serve in the House of Delegates. Today I am bowing out voluntarily, having told my society that I would refuse to let my name come up again and giving them this reason, that I could not continue to be active in this organization of which I was President, where I had asked for and received the resignation of a group of men that were 10 years younger than I am today, for I am now in my eighty-first year. I want now to thank the LaSalle-Frio-Dimmit Counties Medical Society that thought they could keep me through the years as a delegate.

I also want to express my thanks to this House of Delegates for having used me, for giving me an opportunity to serve, and honoring me, having elected me to the highest office that you had to give. Also you sent me as a delegate to the House of Delegates of the American Medical Association for a number of years, where I served for some seven or eight years as chairman of the Texas delegation.

I want also to express my thanks to the House of Delegates of the American Medical Association that advanced me—made me a member of the official family of the American Medical Association. I am now serving on my last leg as chairman of the Council on Constitution and By-Laws. When that long service is over I will go back to my home in Carrizo Springs; and I shall remember kindly those that have helped me, those that have held my hands, and forget all of the disappointments and the heartaches. From my heart I shall breathe a prayer, Mr. Speaker, for you and the men in the line that is carrying on. I bid you Godspeed and thank you. (Loud applause.)

Dr. Pickett.

Now I recognize Dr. Kimbro.

Dr. R. W. Kimbro, Cleburne: I am glad to present to the House of Delegates Mrs. Sam Thompson; I know that you know her like you did "Dr. Sam" and you love her. He practiced medicine, as you know, in the best tradition, and they developed the business of serving. We all highly honor and respect them. I present to you Mrs. Sam E. Thompson of Kerrville.

Mrs. Thompson: It is a privilege and a pleasure to meet with you this morning. I said to Dr. Kimbro the other day that I believed I had probably attended more meetings of this Association than a good many of the doctors over the state. "Dr. Sam" has been very instrumental in this organization and has worked with the organization, and somehow he just took me along with him and you accepted me; and I thank you.

Dr. Deaton: As you know, there is no new business presented on the last day of the session except by the Board of Trustees or the Board of Councilors, or by unanimous consent of the House. I am ready now to ask the Board of Councilors if they have anything that they wish to present. Dr. Billups, of Houston.

SECOND REPORT OF BOARD OF COUNCILORS AS REFERENCE COMMITTEE

Honorary and Inactive Members

Dr. J. T. Billups, Houston: The other night I promised to bring you back the list of new nominees for inactive and honorary membership. That list has been published, and the only addition we have is Dr. C. H. Brownlee of Austin. I move that this list be elected to that type of membership.

Delegate: I second it.

Dr. Deaton: Do we have to read that list?

Dr. Billups: It would take some time to read the list, and it has been distributed. Each Councilor who desired to has been over it, and you have had an opportunity to see it. We can read it, but it will take some time. I move that the reading be dispensed with. [Thereupon the motion was seconded and adopted.]

Dr. Billups: I thank you very much. This seems to be the time of bowing out, and I am another one. I am going to rest for a while. I have not been up here 40 years but some of you might think that I have. I have come to the end of my time of eligibility on the Board of Councilors. I have not been on there anything like 40 years but it is long enough; and I thank you for every consideration that you have given me. (Applause.)

Dr. Deaton: Do you wish to make a report at this time, Dr. Kimbro, or had you rather wait until later? It is now time to present the General Practitioner of the Year. It is usually customary that the Councilor of his district present him to the House.

Presentation of General Practitioner of Year

Dr. Howard O. Smith, Marlin: You have seen Dr. Bryan and have met him and you know of his career—one of the most outstanding histories of man in the country who has done a great work in a small area in Texas, Dr. Thomas F. Bryan. I present him to you as the General Practitioner of the Year to this House of Delegates, to the Texas Medical Association, and to the United States. (Loud applause.)

Dr. Thomas F. Bryan, Dublin: I have never liked publicity but I am getting a good bit of it. Anyhow I have had a wonderful time since I have been down here.

Now, I considered being elected as the General Practitioner of the Year a great honor, and I want to let all of you know that I appreciate it very, very much. I want to thank each and every one of you from the bottom of my heart for this honor, and I hope that I will deserve it.

Dr. Deaton: Is there any other business to come before the House before we go into the election of officers? Dr. Kimbro, do you have any business? Dr. Billups? Dr. Owen? Dr. May Owen is finishing the statutory limit as chairman of the Council on Scientific Work, and the relinquishment of that post is going to be a great loss. I think that we ought to give her a great big hand. (Loud applause.)

Election of Officers

Dr. Deaton: If there is no other business we are ready to proceed with the election of officers. The Chair will now entertain nominations for the office of President-Elect of the Texas Medical Association. Dr. Van Goodall of Clifton has the floor.

Dr. Goodall: A very good doctor and fine friend of mine and the entire group has been a good friend of mine for many years. He is a native Texan; he had his premedical work in Baylor University in Waco; and he graduated with his M. D. degree from the Galveston Medical Branch. He showed his leadership early in life and was the first president of the Student Honor Council of the medical school. His internship was taken in the Cleveland Hospital, and this was followed by a residency. He also for a time was instructor in surgery at the University of Michigan in Ann Arbor. For the last 20-odd years he has been associated with the Torbett Clinic in Marlin, and to my certain knowledge for more than 10 years he has been a constant yearly delegate representing the Falls County Medical Society to this body.

He also has many fine attributes and requisities from a local standpoint. First, I would like to mention his family. He has a very lovely wife and all of you know and love their sons; one a doctor of medicine, is finishing his surgical residency, and the other son is a splendid young lawyer now representing the Falls County area in the State Legislature.

He also has been connected with many of the other sister associations connected with medicine in the State of Texas, such as Private Hospitals and Clinics and so on—the Texas Association of Obstetricians and Gynecologists. Last year he was President of the Twelfth District Medical Society.

I might also mention that he is interested in his local town from a civic standpoint. He is a former city commissioner; he is a devout churchman and he is now an officer in the Episcopal Church.

During the past 34 years Dr. Smith has filed a total of 32 papers, most of which have been read before the various medical societies throughout our state, many of which were published.

Dr. Smith also is a fairly recent president of Texas Exes Alumni Association. Dr. Smith has also had a willing and open ear to all types of requests, whether they be for medicine, family, civic, or what not.

It gives me extreme pleasure to present the name of Dr. Howard O. Smith, my neighbor from the Twelfth District, to you as President-Elect of the Texas Medical Association.

[Dr. Smith's nomination was seconded by Dr. Jack B. Lee, San Antonio; Dr. Ridings E. Lee, Dallas; and Dr. W. M. Avent, Waco. There being no other nominations, Dr. Smith was unanimously elected by acclamation as President-Elect.]

Dr. Deaton: The next order of succession is the office of Vice-President. Whom will you have for your Vice-President? Dr. Willingham of Tyler.

Dr. C. E. Willingham: It has become necessary and important for our President to have an active and useful Vice-President. Dr. Denton Kerr, as you know, is coming out as the President of our Medical Association, and it is felt that if we could get another capable Vice-President such as we have had this past year for Dr. Milford Rouse, we will go further towards showing everyone the importance of the position of Vice-President.

Dallas furnishes us with an excellent man who has been active in medicine for many years—the number of which I do not know—but I do know that he was active in the practice of medicine when I was hanging around one of the hospitals here in the 1920's. He showed his capabilities then in the field of internal medicine; he has continued to be active and to show his capabilities throughout these many years. We have in our Dr. David W. Carter, Jr. of Dallas an excellent man, who I feel will fill this position with the highest degree of honor and who will devote his efforts towards helping Dr. Denton Kerr make his reign as President of our Association through 1957 and 1958 successful. So, I want to nominate Dr. David W. Carter, Jr. of Dallas for the office of Vice-President of the Texas Medical Association.

[Following seconds of the nomination by Drs. J. M. Travis, Jacksonville; A. Fletcher Clark, Jr., San Antonio; and James D. Murphy, Fort Worth, nominations were closed and Dr. Carter elected by acclamation.]

Dr. Deaton: Next we come to the office of Speaker of the House of Delegates. Right here I would like to make a statement. Dr. Bob Homan was Speaker and I was Vice-Speaker, and at the end of the fourth year Bob came to me and said, "I am a little bit tired. What do you want to do about this job?" I said, "Bob, you go on and keep it another year and I will understudy you," which I did.

I think, perhaps, so far we have not needed it, but I think eventually it might be well to have something written into the Constitution and By-Laws regarding the successor of the Speaker and the term of office, etc., as we have for Trustees, Councilors, and those things.

Now, I have finished four years as Speaker of the House. I have enjoyed it; the longer you go the more you find out, the more you learn, and you get too many things to worry about; it really gets more tiresome than it was at the beginning because you know what is coming and you know what the angle of it is. I think that four years is long enough for a man to serve—or four years as Vice-Speaker and then four years as Speaker. If the House decides on a different solution, why, they can write it into the Constitution and By-Laws at some convenient time.

I am not a candidate for renomination to this position in your Association.

I will now call for nominations for Speaker of the House. Dr. Bob Moreton of Fort Worth.

Dr. R. B. Moreton: The man that I would like to talk about for about a minute has served this House of Delegates well; he has served organized medicine for many years; he came here as a delegate from his county society; he served his county society as President; he has served as Vice-Speaker and he has served now for four years as Speaker. I would like to express my own appreciation as to his outstanding service to the Association. I feel that he has tried to call the balls and strikes exactly as he has seen them, regardless of whose toes that he stepped on or whether they were from his own county society or somewhere else. I feel that we should give Dr. Deaton a vote of thanks and appreciation for the excellent manner that he has run this House and for the way in which he has served this Texas Medical Association. (Loud applause.)

I really thought that Dr. Deaton would have stayed another year. Since he has felt that his 5,000 miles is up, it is with much pleasure and it is my privilege that I nominate to this House of Delegates for the new Speaker, Dr. Charles P. Hardwicke of Austin.

Dr. Deaton: I just want to say that everybody would want to second that nomination. Dr. Hardwicke has worked with me for four years; he is a parliamentarian; he knows the Constitution and By-Laws; and I know that he will make a good Speaker.

[The nomination of Dr. Hardwicke was seconded by Dr. Ridings E. Lee, Dallas, who moved that the nominations cease and that the Secretary be instructed to cast a unanimous ballot for Dr. Hardwicke. The motion passed unanimously.]

Dr. Deaton: Next in order is Vice-Speaker of the House. Dr. Oswalt.

Dr. C. E. Oswalt, Fort Stockton: I wish to place in nomination the name of a man who is young enough to stand the gaff of being Vice-Speaker for a period of time and then still have something left to be Speaker, if you so desire him to continue in that line. This man has served here in the House of Delegates for several years; he was chairman of the Committee on Scientific Exhibits for five years; he has had previous experience in serving as Speaker of the House in that he is now Speaker of the Congress of Delegates of the American Academy of General Practice. I wish now to nominate Dr. James D. Murphy of Fort Worth for the office of Vice-Speaker of this House of Delegates.

[Dr. Murphy's nomination was seconded by Dr. L. H. Reeves, Fort Worth, and Dr. G. T. Denton, Dallas, who moved that the nominations cease and a unanimous ballot be cast. The motion carried.]

Dr. Deaton: Next we have the election of Trustee. Dr. R. W. Kimbro's term expires. He was elected in 1952.

Dr. F. W. Yeager, Corpus Christi: Now and then a man does a monumental piece of work and makes continuing service more or less a duty; such a job has been done by Dr. Bob Kimbro. I will not give you a biographical sketch on this man as I feel that it would be both distracting and surplus. Suffice it to say that I have worked with Dr. Kimbro on various features of this Association's business, and I have always found him honest, capable, and sincere. It is a great honor to present the name of Dr. Bob Kimbro of Cleburne to succeed himself as Trustee for the Texas Medical Association.

[The nomination of Dr. Kimbro was seconded by Dr. L. Bonham Jones, San Antonio; Dr. May Owen, Fort Worth; Dr. Van Goodall, Clifton; Dr. George Turner, El Paso; and Dr. Thomas J. Vanzant, Houston. Upon motion by Dr. Vanzant to close the nominations and elect Dr. Kimbro by acclamation, Dr. Kimbro was unanimously elected.]

Councilors

[Then followed the election of Councilors as follows:]

Second District, Dr. Henrie E. Mast, Midland, to succeed Dr. R. B. G. Cowper, Big Spring.

Seventh District, Dr. David Wade, Austin, to succeed himself.

Eighth District, Dr. Carlos E. Fuste, Alvin, to succeed Dr. J. H. Wooten, Columbus.

Ninth District, Dr. Herbert H. Duke, Baytown, to succeed Dr. J. T. Billups, Houston.

Tenth District, Dr. Stephen B. Tucker, Nacogdoches, to succeed Dr. L. C. Heare, Port Arthur.

Delegates to American Medical Association

[Next came the election of delegates and alternate delegates to the American Medical Association as follows:]

Dr. Truman C. Terrell, Fort Worth, delegate to succeed himself.

Dr. Milford O. Rouse, Dallas, delegate to succeed himself.

Dr. J. B. Copeland, San Antonio, delegate to succeed himself.

Dr. G. W. Cleveland, Austin, alternate delegate to succeed Dr. J. C. Terrell, Stephenville. (Dr. Terrell requested that his name not be put in nomination as he preferred to remain as delegate designate.)

Dr. J. W. Rainer, Odessa, alternate delegate to succeed himself.

Dr. George Turner, El Paso, alternate delegate to succeed himself.

Dr. J. C. Terrell, Stephenville, delegate designate to succeed himself.

Dr. J. L. Cochran, San Antonio, alternate delegate designate to succeed himself.

Councils

[The President-Elect, Dr. Denton Kerr, then nominated members to fill vacancies in the councils, who were elected by the House as follows:]

Council on Medical Defense, Dr. P. M. Kuykendall, Ranger, to succeed himself.

Council on Medical Jurisprudence, Dr. John M. Smith, San Antonio, to succeed himself.

Council on Scientific Work, Dr. Herman C. Sehested, Fort Worth, to succeed Dr. May Owen. (EDITOR'S NOTE: Dr. Kerr named Dr. L. Bonham Jones, San Antonio, already a member of the Council, to succeed Dr. Owen as chairman.)

Council on Medical Economics, Dr. Harvey Renger, Hallettsville, to succeed himself.

Council on Medical Education and Hospitals, Dr. Albert W. Hartman, Jr., San Antonio, to succeed himself.

Council on Constitution and By-Laws, Dr. Ridings E. Lee, Dallas, to succeed himself.

Standing Committees

[Finally, members of the standing committees appointed by the President-Elect, Dr. Kerr, were read by him as follows:]

Committee on Cancer, Dr. E. T. Driscoll, Midland, to succeed himself.

Committee on Cancer, Dr. J. L. Goforth, Dallas, to succeed himself.

Committee on Medical History, Dr. William M. Crawford, Fort Worth, to succeed Dr. W. E. Whigham, McAllen.

Committee on Tuberculosis, Dr. J. Walter Park, III, San Antonio, to succeed himself.

Committee on Tuberculosis, Dr. John A. Wiggins, Fort Worth, to succeed himself.

Committee on Mental Health, Dr. A. D. Pattillo, Austin, to succeed himself.

Committee on Mental Health, Dr. Dorothy Wyvell, Midland, to succeed herself.

Committee on Public Health, Dr. Austin Hill, Houston, to succeed Dr. Arthur G. Schoch, Dallas.

Committee on Public Health, Dr. James E. Ball, Mt. Pleasant, to succeed himself.

Committee on Blood Banks, Dr. O. J. Wollenman, Jr., Fort Worth, to succeed himself.

Committee on Industrial Health, Dr. S. W. Bradford, Tyler, to succeed himself.

Committee on Industrial Health, Dr. N. B. Daniel, Texarkana, to succeed himself.

Committee on Patient Care, Dr. G. V. Brindley, Jr., Temple, to succeed himself.

Committee on National Emergency Medical Service, Dr. Ralph A. Munslow, San Antonio, to succeed himself.

Committee for Liaison with Workmen's Compensation Insurance Companies, Dr. Edward T. Smith, Houston, to succeed himself.

1960 Annual Session

Dr. Deaton: The next item of business is the selection of the time and place of the 1960 annual session.

Dr. E. P. Hall, Fort Worth: At our Tarrant County meeting the committee voted for me to extend an invitation in behalf of the Tarrant County Medical Society to hold your meeting in Fort Worth, Texas, in 1960.

Dr. Sam Key, Austin: The Travis County Medical Society would like to extend an invitation to hold the Texas Medical Association meeting in Austin, Texas, in 1960. We feel that we have the facilities; we have a range of entertainment; and we would like very much the privilege of having the Texas Medical Association meet in Austin.

Dr. Deaton: Fort Worth and Austin have extended you an invitation.

Delegate: May we have a word from the Executive Secretary as to the facilities in Austin?

Dr. Deaton: I don't think that that would be in order. This is referred to the Trustees and Council on Scientific Work for their final decisions. I don't believe that the House has to vote on this proposition. It is referred to the Trustees and the Council on Scientific Work. They will investigate the facilities in Austin and Fort Worth. Are there other invitations? If not, it looks like we will sure have a meeting place somewhere.

Is there other business?

The matter of registration—as of 9 o'clock this morning we have members, 1,507; guests, 33; visitors, 171; exhibitors, 312; or a total of 2,023; the Woman's Auxiliary has 634, making a total registration of 2,657.

It has been a good time in Dallas.

I wish to thank the tellers for working for me. They didn't have much to do this morning, but we will pay them just the same. Dr. Copeland has the floor.

Dr. J. B. Copeland, San Antonio: I move a rising vote for the courtesies of Dallas.

Dr. Deaton: Dr. Copeland of San Antonio makes a motion that this House give a rising vote of thanks to the City of Dallas for entertainment that they have extended to you and their hospitality. We have enjoyed it throughout our meeting here. Is there a second? (Loud applause.) Is there any other business? Gentlemen, it has been nice to do business with you. A motion to adjourn is in order.

[Thereupon a motion to adjourn was made, seconded, and carried, and the House of Delegates adjourned at 10 a. m.]

Wednesday, May 1, 1957

GENERAL MEETING LUNCHEON

[The General Meeting Luncheon of the Texas Medical Association was held Wednesday, May 1, 1957, at 12:30 p. m. in the Terrace of the Baker Hotel, Dallas. Dr. Milford O. Rouse, Dallas, President, presided.]

[Following the invocation by the Rev. William A. Holmes, associate pastor of Highland Park Methodist Church, Dallas, and luncheon, Dr. Rouse introduced some of the guests at the speaker's table. Among these were Mrs. Richard C. Bellamy, Liberty, outgoing President of the Woman's Auxiliary to the Texas Medical Association; Dr. Foy Moody, Corpus Christi, Vice-President of the Texas Medical Association; Dr. J. M. Travis, Jacksonville, Secretary of the Association; and Dr. David W. Carter, Jr., Dallas, incoming Vice-President of the Association.]

Rehabilitation Award

[Dr. Rouse then recognized Laurence R. Melton, Dallas, who presented a certificate to Dr. Lee D. Cady, Houston, with the following words:]

I have the honor and pleasure to represent the President of the United States and the Governor of Texas today in honoring a great citizen, Dr. Lee D. Cady, who through his outstanding work in the rehabilitation of veterans and citizens in Texas has provided them with a rehabilitation service that enables them to become useful citizens.

Dr. Cady's work in Houston and that area has fallen not only on the ears of those in the Southwest but throughout the United States. It is my privilege to present to Dr. Cady "for meritorious service in appreciation for his exceptional contribution in advancing the employment of the physically handicapped," this certificate signed by Major General Melvin J. Maas, chairman of the National Committee, for the President of the United States and by Laurence R. Melton, chairman of the Texas Committee, for the Governor of Texas.

[Dr. Rouse next introduced Dr. Thomas F. Bryan, Dublin, who had been elected by the House of Delegates as General Practitioner of the Year. Mrs. J. C. Terrell, Stephenville, presented Dr. Bryan with a gift from his friends in his home area, and Mrs. Bryan also was introduced.]

[Next Dr. Rouse presented the newly elected President-Elect of the Texas Medical Association, Dr. Howard O. Smith, Marlin; the incoming President of the Woman's Auxiliary to the Texas Medical Association, Mrs. H. S. Renshaw, Fort Worth; and the newly elected President-Elect of the Auxiliary, Mrs. John D. Gleckler, Denison.]

[President Rouse called attention to the approximately 75 civic leaders from several Texas cities who had spent part of the morning visiting the exhibits and were present for the luncheon as "physicians for a day." After these guests had risen and been recognized with applause, R. L. Thornton, mayor of Dallas, responded briefly, expressing the pleasure of Dallas in playing host to the doctors of Texas and the appreciation of business men at being invited to attend some of the annual session functions.]

Anson Jones Award

[At this time Dr. Rouse explained that the Texas Medical Association, at the suggestion of its Committee on Public Relations and recognizing the fine contribution the press is making toward the accurate dissemination of health information to the public, had established an award for excellence in lay medical reporting. Known as the Anson Jones Award—in honor of the physician who served as the last president of the Republic of Texas and who was an able writer as well as a statesman and physician—this award consists of a plaque and $250 cash. Dr. Rouse then presented the first Anson Jones Award to Blair Justice, reporter for the Fort Worth *Star-Telegram*.]

[Mr. Justice responded, expressing his personal appreciation for the recognition and commending the Texas Medical Association for establishing such an award. He stated that in his opinion, this award would be an incentive to newspapermen to do their best to let the public know that doctors are eager for laymen to know about advances in medicine. He thanked the Tarrant County Medical Society and Fort Worth doctors for supporting his nomination for the award.]

[The President then invited Dr. Glenn D. Carlson of Dallas, president of the Dallas County Medical Society and a member of the Texas Medical Association's Committee on Public Relations, to present an honorable mention award

in the Anson Jones competition. Dr. Carlson made the presentation to Miss Helen Bullock, Dallas *Morning News* reporter.]

Address by Speaker of House

[Next came a report of activities of the House of Delegates, delivered by the Speaker of the House, Dr. Hobart O. Deaton, Fort Worth:]

The House of Delegates is a democratic organization, and is the law-making body of the Texas Medical Association.

It might interest some of the laymen present that its personnel is composed of the officers of the Texas Medical Association, the chairmen of councils and certain committees, and elected delegates from the many county societies of this state. Each county medical society elects one delegate for each 100 members, or fraction thereof. And do not fool yourself into thinking that any of these delegates can't vote or voice an opinion.

The House elects our officers, and elects one delegate to the House of Delegates of the American Medical Association, for each thousand members of the state or a fraction thereof. Being loyal Texans, you have already guessed it: our Texas delegation is one of the best known and most influential delegations in the American Medical Association. So much for the democratic structure.

The House of Delegates has held some busy sessions since last Saturday. The first session was opened with an inspirational "State of the Union" message by our President, Dr. Milford O. Rouse. His recommendations regarding preventive medicine, the health of the medically indigent, tuberculosis control, and other related matters have already been implemented and put to work.

Since January there has been much interest and discussion concerning the need for a fourth medical school in Texas. The state has now approximately 9,000,000 citizens. Before a fourth school could be graduating new physicians, the population of the state will exceed 10,000,000. Our President reminds us that Texas physicians have an obligation to look ahead and take the lead in planning to meet the developing needs in medical education. The cooperation of industry and public spirited citizens is also needed in this regard. The House approved continuing study toward the establishment of another medical school; the logical site is considered to be San Antonio.

The Texas Medical Association has rendered real service to our state in recent months by sponsoring a consultation study for mental health needs by Dr. Francis J. Gerty of Chicago, an eminent psychiatrist. His report has been made, and if the members of our Legislature can be found in a receptive mood, there soon should be passed the proper legislation to activate some of his recommendations.

At this annual session the House was deluged by reports of committees and resolutions exceeded only by the whirling waters of the Trinity River as it moved the flood from Fort Worth eastward toward Dallas.

National legislation, as usual, received attention. The House reaffirmed its position in favor of the Bricker amendment, the Jenkins-Keogh measures, and repeal of the sixteenth amendment, and strongly opposed federal participation in business in competition with private enterprise. It is definitely opposed to federal aid to medical schools for expansion or for any other purpose.

Two important new committees were recommended: (1) on military affairs and (2) on nuclear and atomic medicine.

The Board of Trustees reported the Association is in sound financial condition. They pointed out, however, that our operational expenditures are about as large as permissible with our present revenue. They acknowledged a bequest of $500,000 to be used only for loans to worthy medical students and of $50,000 for our Memorial Library, both from the estate of the late and beloved Dr. Sam Thompson, and two trusts from anonymous donors to be used in worthy medical projects.

Colonel Lowry of the Department of the Army complimented TMA on its administration of the Medicare program. If you are not informed, this program provides medical and hospital care for the wives and dependents of men in our uniformed armed forces. In spite of our usual suspicion of things federal, since this program is vitally connected with the defense of our nation, the House recommended that it be continued and reviewed again at our next annual session.

The House also recommended that polio vaccine should be handled in the same manner and through the same channels as any other vaccine. The Association's Policy on School-Child Immunizations and Examinations was amended so that one section would read: "The local board of education should be encouraged to adopt regulations to enable the school to meet its responsibility in accomplishing these objectives; to wit the local board of education should require that each child be immunized against smallpox, poliomyelitis, diphtheria, and tetanus as a prerequisite to school attendance."

At this morning's session everything was sweetness and light. The House was honored to have the charming Mrs. Robert Flanders, President of the Woman's Auxiliary to the American Medical Association, bring greetings and a concise and interesting account of their activities. Dr. May Owen was given a standing ovation in acknowledgment of her 10 years of service as chairman of the Council on Scientific Work. Several other members who have reached the statutory limit of their term of service received the thanks of the House.

All of our officers were elected or reelected unanimously by acclamation: President-Elect, Dr. Howard Smith, Marlin; Vice-President, Dr. David Carter, Dallas; Speaker of the House, Dr. Charles Hardwicke, Austin; Vice-Speaker, Dr. J. D. Murphy, Fort Worth. Dr. Robert Kimbro of Cleburne, who is now the able chairman of our Board of Trustees, was reelected. A long list of Councilors, AMA delegates, members of various councils, and so forth, followed. For these and the detailed proceedings of the House of Delegates, I refer you to the June *Journal*.

It has been a privilege and pleasure to serve this organization in the House of Delegates for many years, and I thank you all.

[Following Dr. Deaton's address, Dr. Rouse recognized Mrs. Sam E. Thompson of Kerrville, wife of the donor mentioned by Dr. Deaton.]

[He then introduced Dr. Denton Kerr, Houston, incoming President of the Texas Medical Association, who addressed the assembly on "The Physicians' Positive Program" (published in the original article section of this *Journal*).]

[Dr. Rouse then presented Dr. Kerr with the gavel of office, and Dr. Kerr vested Dr. Rouse with the Association's past president's medallion.]

[The program was concluded by an address from Robert B. Anderson of New York, former Secretary of the Navy and now president of Ventures, Ltd., entitled "The Art of Introspection" (published in the original article section of this *Journal*). Mr. Anderson was introduced by Dr. R. W. Kimbro, Cleburne.]

[Dr. Rouse recognized V. O. Foster, Birmingham, Ala., secretary of the Southern Medical Association, before the group was dismissed at 2:15 p. m.]

TMA Members Being Armed With Insecticide Study Data

Under sponsorship of its Committee on Rural Health and Doctor Distribution, the Texas Medical Association is cooperating with the State Department of Health and the Texas Agricultural Extension Service in an effort to acquaint as many Texans as possible with the precautions that should be taken to prevent human illness from use of insecticides, particularly in the summer months ahead.

A kit of materials on insecticide usage, including composition of poisons, their relative toxicity, and a description of insects and mites against which each is effective, was sent to each county medical society secretary about June 15, and two kits were filed in the Texas Medical Association Library in Austin.

In addition, a pamphlet on this subject was sent to each member of the Association, and information on poisons was distributed to veterinarians and county agents. Appearing in the state's newspapers already have been informational releases on the campaign, notably a recent "About Your Health" column by Dr. Henry A. Holle of the Texas State Department of Health.

Most recent meeting of the associated insecticide study groups was at College Station on May 24.

SEPTEMBER 8 DATE FOR EXECUTIVE COUNCIL

The fall meeting of the Executive Council of the Texas Medical Association has been set for Sunday, September 8, in Austin. The preceding day has been reserved for committee meetings, a program of indoctrination for provisional members, and a public relations conference.

TEXAS JOURNALS NEEDED

Because reserve supplies on some recent issues of the *Texas State Journal of Medicine* are exceptionally short, the *Journal* staff is soliciting copies that might be discarded otherwise—and is willing to pay postage for their return. Copies needed are for January and February, 1956, and for January, February, March, April, and May, 1957. The *Journals* should be sent to the editorial offices at 1801 N. Lamar Blvd., Austin.

★ County Societies

Doctors Take Heart As Program Subject

The human heart is wooing the attention of Texas Medical Association members across the state.

Dr. Denton A. Cooley, associate professor of surgery at Baylor University College of Medicine, Houston, was in San Antonio recently to address the *Bexar Medical Society* on aspects of open heart surgery.

In the Alamo City, also, the diagnostic facilities of the cardiac clinic for the medical indigent, sponsored at Robert B. Green Memorial Hospital since 1950 by the San Antonio Heart Association, have been extended to all patients who can benefit from them, provided that similar studies are not available elsewhere. This heart station provides a full range of diagnostic procedures, including cardiac catheterization, equipment for recording heart sounds, angiocardiography, and pulmonary function studies through support of the Heart Association. (The Heart and Cancer Control Division, Texas State Department of Health, has furnished personnel and equipment on extended loan.)

The *Tom Green-Eight County Society* devoted a May meeting to a scientific program on heart problems and discussion of the new cardiovascular department and heart station at Shannon Memorial Hospital, San Angelo. Physicians participating were Drs. F. T. McIntire, John Ballard, J. L. Read, B. A. Joiner, and Ray Boster.

A recent meeting of the *Harris County Society* featured a symposium presented by the Baylor University College of Medicine which included the following: "Intracardic Surgery," a movie, commentated by Dr. Denton A. Cooley; "Occlusive Disease of Aorta and Major Arteries," Dr. E. Stanley Crawford; "Acute Arterial Emergencies," Dr. George C. Morris, Jr.; and "Aneurysm of the Aorta," Dr. Michael E. DeBakey.

The *Fort Worth Heart Association* recently presented before the *Tarrant County Society* a program which included talks by Dr. William Likoff, Philadelphia; Dr. Dwight E. Harken, Boston; and Dr. Earl H. Wood, Rochester.

Disaster Planning Cited

Disaster planning was on the schedule of several county medical societies in recent weeks, as Texas' continuing siege of bad weather made the need more and more evident.

A permanent disaster committee elected by the *Tarrant County Society* to begin planning for any type of community emergency includes Dr. Sidney E. Stout, chairman; Dr. W. P. Higgins, Jr., co-chairman; Dr. R. V. Brasher, Pennsylvania Avenue Hospital; Dr. C. K. Holsapple, Harris Hospital; Dr. John H. Richards, St. Joseph's Hospital; Dr. Art H. Rutledge, All Saints' Hospital; Dr. Edwin G. Schwarz, Cook Hospital; Dr. W. B. West, John Peter Smith Hospital, all of Fort Worth, and Dr. Frank Wallace, Arlington. A representative from the Osteopathic Hospital will also be named, and officers of the society will be ex officio members.

At a recent meeting of the *McLennan County Society* in Waco, Dr. Robert Gassler discussed plans for organization of area medical teams for use in case of community disaster. These were prepared during his tenure as chairman of the society disaster committee and will be presented to the current committee.

McLennan County Needs Blood

More doctors should themselves become regular blood donors, Dr. Milton Spark, secretary of the McLennan County Society, told his colleagues at a recent meeting in Waco at which a community need for blood was cited.

Reporting in behalf of the society's Blood Bank Committee, Dr. K. P. Wittstruck had stressed the need for physicians to urge families of those persons who had received blood from a blood bank to replace it. He pointed out that blood is needed for refractionation purposes for serum albumin, fresh frozen plasma, and fibrinogen.

Poisons Attract Comment

As summer approaches, problems of poisoning have stepped into the Texas medical spotlight.

"Cotton Insecticides Used in Hill County" was a paper presented by Charles Clark, Hill County agent, at a recent *Hill County Society* meeting in Hillsboro, at which time Dr.

Dick Cason of Hillsboro Clinic-Hospital discussed "Treatment of Human Beings Receiving an Overdose of Cotton Insecticides."

In Waco, meanwhile, the *McLennan County Society* heard Dr. Milton Spark speak on "Poisoning—A Review of Waco Cases for 1956, Classification, and General Principles of Treatment."

Formation of a Poison Control Center in Houston is of prime interest to members of the *Harris County Society*, which has been requested for representation on the center's medical advisory committee. Handling liaison details between the society and the center is Dr. E. L. Crain, society public health committee chairman.

Bexar Attorneys Address Medics

The San Antonio Bar Association presented the program of the *Bexar County Society* April 9, when speakers included three prominent lawyers, Joel Westbrook, Bar president, Solomon Casseb, Jr., and Charles W. Barrow.

Other recent Bexar programs have included "Recent Advances in Therapeutics," with Drs. Brook Mullen, A. C. Ressmann, B. B. Shaver, J. W. Goldzieher, and J. C. Meadows, panelists, and "The Common Infectious Vaginitides," by Dr. Herman L. Gardner, associate clinical professor at Baylor University College of Medicine, Houston, as well as associate clinical professor at the University of Texas Postgraduate School of Medicine.

★ District Societies

Seventh District Society

The Seventh District Medical Society met April 7 in Austin for a business and scientific session, followed by a river boat ride and dinner.

Officers elected were Dr. R. N. Snider, Austin, president; Dr. R. L. Shepperd, Burnet, vice-president; Dr. Richard Lucas, Austin, secretary; and Dr. David Wade, Austin, councilor.

"Vomiting in the Newborn" was the topic of Dr. Miles Sedberry, Austin, during the scientific session. Second portion of this program was a movie on "Deceleration Injuries to the Skull" presented by Dr. Robert Farris, Austin.

Ninth District Society

Navasota was the scene of the annual meeting of the Ninth District Medical Society April 3. Elected president for the coming year was Dr. Eugene M. Addison, Huntsville, while those serving with him will be Dr. Lyman C. Blair, Houston, vice-president; and Dr. James H. Sammons, Highlands, secretary-treasurer. Dr. Herbert H. Duke, Baytown, was nominated for a three-year term as councilor for the district.

Included on the program were "Common Sense Application of Natural Childbirth Principles" by Dr. George L. Moore, "Fluid in the Ears" by Dr. Claude C. Cody, III, "Diverticulitis of the Sigmoid Colon; Newer Concepts in Surgical Treatment" by Dr. Orceneth A. Fly, "Evaluation of the Hard Prostate" by Dr. Harry Grabstald, "Modern Treatment of Peripheral Arterial Injuries" by Dr. George C. Morris, "The Surgical Treatment of Arteriosclerosis" by Dr. E. Stanley Crawford, "Surgical Aspects of Thyroid Disease" by Dr. Burt B. Smith, "Differential Diagnosis and Treatment of Painful and Numb Hands" by Drs. George Ehni and Milam E. Leavens, and "A New Mechanical Respirator" by Dr. Lyman C. Blair, all of Houston. "Pediatrics" was the subject of Dr. William S. Conkling of Navasota.

Others on the program were Dr. C. Marius Hansen of Navasota, president; Dr. J. T. Billups of Houston, councilor; and Dr. Denton Kerr of Houston, then President-Elect of the Texas Medical Association. Mrs. J. T. Dabney, Jr. conducted the Woman's Auxiliary business session.

The society will meet next spring in Conroe.

WOMAN'S AUXILIARY

STATE CONVENTION REVIEWS AUXILIARY ACCOMPLISHMENTS

Mrs. Richard C. Bellamy, Liberty, as President of the Woman's Auxiliary, reported to the Texas Medical Association at a general meeting in Dallas during its ninetieth annual session and pointed out the new records of accomplishments of the Auxiliary during the past year. (Mrs. Bellamy's report is published in the Association's transactions in this *Journal.*)

The Auxiliary's own thirty-ninth annual convention was held simultaneously in Dallas. At the council women's breakfast on Sunday, April 28, Mrs. Harold Lindley, Pecos, First Vice-President, congratulated the vice-presidents and council women for their work in placing Texas second in the nation with its membership of 5,162. Incoming council women were given instruction to aid them in their organization work ahead.

The Health Fair was officially opened to the public by Mrs. Bellamy, Dr. Milford O. Rouse, Dallas, President of the Texas Medical Association, and Mrs. O. M. Marchman, Jr., Dallas, Convention chairman, at 11 a. m. on Sunday, and Mrs. Jackson H. Speegle, Dallas, chairman of the fair, which was located at the Dallas Health Museum, reported more than 1,000 visitors were in attendance the first day, despite bad weather.

Executive Board Meeting

The Auxiliary Executive Board met for a luncheon and meeting on Sunday afternoon at the Statler Hilton Hotel, Auxiliary headquarters. Mrs. O. W. Robinson, Paris, President of the Woman's Auxiliary to the Southern Medical Association, welcomed members to the convention in Miami Beach, November 11-14. Mrs. E. H. Cary, Dallas, the Auxiliary's first president, paid tribute to the past presidents and introduced those in attendance.

Following a call for recommendations, the Board approved motions that the Auxiliary supplement the amount collected for the American Medical Education Foundation by the county organizations to equal a total contribution of $10,000; furnish copies of the new "Manual for Future Nurse Clubs" to county auxiliary presidents and club sponsors, and make available for purchase additional copies; reimburse the Auxiliary to the Bexar County Medical Society the $100 expenditure for the snack bar at the convention of the Texas Association of Future Nurses held in San Antonio; and allocate $100 if needed at future conventions of the organization.

The Board approved depositing contributions on hand in the Library Fund in a savings and loan association, insured by the Federal Deposit Insurance Corporation, and paying at least 3½ per cent interest.

A suggestion was made regarding the appointment of a co-chairman of the American Medical Education Foundation, that this person be a resident of Austin and responsible for the Christmas card project as this would simplify records and banking. The Board also approved a suggestion to county executive boards that each member subscribe to the *Bulletin* of the National Auxiliary.

The Sunday afternoon Memorial Services honored deceased members of the Association and the Auxiliary.

Past presidents of the Auxiliary gathered for dinner on Sunday evening and exchanged experiences gained in their organization work.

General Business Sessions

The Auxiliary's first general business session of its thirty-ninth convention began at noon on Monday, April 29, with Mrs. Bellamy presiding. The county presidents and three charter members of the Auxiliary (Mrs. E. H. Cary, Mrs. O. M. Marchman, and Mrs. H. Leslie Moore, all of Dallas) were honored by the 190 members and guests in attendance.

Dr. F. J. L. Blasingame, Wharton, past president of the Texas Medical Association and vice-chairman of the Board of Trustees and chairman of the Executive Committee of the American Medical Association, was introduced, and he brought greetings from the national organization. He thanked the Auxiliary for its contribution to the American Medical Education Foundation. He also gave credit to the women for informing their husbands on legislative matters and for their continued support and promotion of *Today's Health.*

Dr. John E. McDonald, Tulsa, Okla., regional representative of the AMA Legislation Committee, was introduced by Dr. Blasingame. He stressed the importance of the women's role in legislative affairs, especially in matters of health.

Dr. Rouse, speaking for the Texas Medical Association, thanked the Auxiliary for its fine cooperation and stressed its importance to good public relations through such projects as the Health Fair, science fairs, and recruitment.

Reports were heard from 41 county auxiliaries, and Mrs. Charles B. Dildy, Austin, chairman of the Historical Committee, presented the awards. Winners by groups (based on size of membership) were:

American Medical Education Foundation: 1, Jasper-Newton; 2, Liberty-Chambers; 3, Navarro; 4, Grayson; 5, Andrews-Ector-Midland; 6, Tarrant.

Bulletin: 2, Liberty-Chambers and Brazoria; 3, East Harris; 5, Jefferson; 6, Dallas.

Civil Defense: 1, Milam; 2, Brazoria; 3, Kerr-Kendall-Gillespie-Bandera; 4, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson; 5, McLennan; 6, Bexar. (Honorable Mention: 2, Ellis and Cass-Marion; 4, Taylor-Jones and Bell.)

Legislation: 1, Red River; 2, Ellis and Brazoria; 3, Wharton-Jackson-Matagorda-Fort Bend; 4, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson; 5, Travis and El Paso; 6, Harris.

Library Fund: 2, Erath-Hood-Somervell; 3, Navarro; 4, Hidalgo-Starr; 5, Jefferson; 6, Dallas.

Membership: Red River was awarded the silver loving cup for membership gain.

Memorial Fund: 1, Bosque; 2, Erath-Hood-Somervell; 3, East Harris; 4, Smith; 5, Potter; 6, Dallas.

Mental Health: 1, Hardin-Tyler; 2, Ellis; 3, Navarro and Victoria-Calhoun-Goliad; 4, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson; 5, El Paso; 6, Bexar.

Nurse Recruitment: 1, Bosque; 2, Brazoria; 3, East Harris; 4, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson; 5, Andrews-Ector-Midland; 6, Dallas and San Antonio.

Public Relations: 1, Borden-Scurry-Kent-Dickens-Garza-King-Stonewall; 2, Brazoria; 3, East Harris; 4, Taylor-Jones; 5, McLennan; 6, Dallas.

Safety and Rehabilitation: 1, Hardin-Tyler; 2, Cass-Marion and Washington-Burleson; 3, Kerr-Kendall-Gillespie-Bandera; 4, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson; 5, El Paso; 6, Dallas and Bexar.

Science Fair: 1, Borden-Scurry-Kent-Dickens-Garza-King-Stonewall; 2, Angelina; 3, Victoria-Calhoun-Goliad; 4, Taylor-Jones; 5, Tarrant; 6, Dallas.

Student-Loan Fund: 1, Bosque; 2, Erath-Hood-Somervell; 3, Hunt-Rockwall-Rains-Delta; 4, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson; 5, Potter; 6, Tarrant and Harris.

Today's Health: 1, Borden-Scurry-Kent-Dickens-Garza-King-Stonewall; 2, Brazoria; 3, Navarro; 4, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson; 5, Andrews-Ector-Midland and Travis; 6, Dallas.

Physical Examinations: 1, Borden-Scurry-Kent-Dickens-Garza-King-Stonewall; 2, Liberty-Chambers; 3, Navarro; 4, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson; 5, El Paso; 6, Dallas and Harris.

Over-All Program Participation: 1, Hardin-Tyler; 2, Angelina; Brazoria; Cass-Marion, Cherokee, Cooke, Ellis, and Liberty-Chambers; 3, Cameron-Willacy; East Harris; Kerr-Kendall-Gillespie-Bandera and Navarro; 4, Bell, Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson and Taylor-Jones; 5, Andrews-Ector-Midland, El Paso, Galveston, Jefferson, McLennan, Nueces, Potter, and Travis; 6, Bexar, Dallas, Harris, and Tarrant.

Special awards were also presented Dr. and Mrs. Bellamy; Dr. and Mrs. H. S. Renshaw; Dr. and Mrs. Rouse; and Dr. and Mrs. Denton Kerr.

The Auxiliary met Tuesday morning, April 30, for its second general business session to hear reports of officers, committee chairmen, and council women.

The proposed budget, prepared in cooperation with the incoming Finance Committee, was submitted by Mrs. E. W. Coyle, San Antonio, Committee chairman.

Mrs. G. V. Brindley, Temple, past president, presented a check for $25 to the American Medical Education Foundation from Mrs. E. V. DePew of San Antonio in memory of Mrs. Henry B. Trigg, a past president from Fort Worth.

Approval was given the motion by Mrs. Charles L. Gary, Jr., Corsicana, *Today's Health* chairman, that gift subscriptions of the publication be sent to the two United States Senators from Texas and to the Governor and Lieutenant Governor, and that this should be a standing rule.

Mrs. George Turner, El Paso, Reference Committee chairman, moved to rescind the motion passed by the Executive Board in September approving adoption of a resolution of the Woman's Auxiliary to the American Medical Association to decrease the number of delegates to the national convention. The motion was approved, and Mrs. Turner went on to present and explain the proposed revisions to the Constitution of the Woman's Auxiliary to the AMA. The motion was made to instruct the Texas delegates to vote against these revisions at the convention in June, 1957. Similar revisions to the National By-Laws were presented and delegates were instructed to vote against these.

Mrs. Fred Sutton, Beaumont, chairman of the Revisions Committee, submitted revisions in the State Auxiliary By-Laws which will include the county presidents on the Executive Board and strike the word "Nurse" from the standing committees so as to leave the committee as "Recruitment." These recommendations were adopted.

Approval was given the motion that the transactions and memberhsip list of the Woman's Auxiliary to the Texas Medical Association be printed and distributed in booklet form to all of the members instead of including this material in the *Texas State Journal of Medicine.*

The Auxiliary display at the convention, designed and prepared by members of the Woman's Auxiliary to the Cameron-Willacy Medical Society, was voted to be returned to the Association building for use by the county auxiliaries.

A standing rule was adopted to invite county presidents-elect and council women–elect to the Executive Board meetings.

The third general session of the Auxiliary followed a luncheon and style show at which Mrs. Robert Flanders, Manchester, N. H., President of the Woman's Auxiliary to the AMA, gave an inspirational message on the role of the physician's wife.

Mrs. O. M. Marchman, Jr., Dallas, Convention chairman, announced the final registration for the Auxiliary to be 612.

The slate of officers as presented by Mrs. Joseph H. McCracken, Jr., Dallas, Nominating Committee chairman, was elected. New officers are:

President: Mrs. H. S. Renshaw, Fort Worth.
President-Elect: Mrs. John D. Gleckler, Denison.
First Vice-President: Mrs. John H. Wootters, Houston.
Second Vice-President: Mrs. J. C. Terrell, Stephenville.
Third Vice-President: Mrs. Richard L. Hudson, Corpus Christi.
Fourth Vice-President: Mrs. H. O. Padgett, Marshall.
Fifth Vice-President: Mrs. O. N. Mayo, Brownwood.
Treasurer: Mrs. William C. Barksdale, Borger.
Recording Secretary: Mrs. Harold Lindley, Pecos.
Corresponding Secretary: Mrs. J. Franklin Campbell, Fort Worth.
Publicity Secretary: Mrs. F. C. Lowry, Austin.
Parliamentarian: Mrs. Ramsay H. Moore, Dallas.

The new officers were installed by Mrs. A. B. Pumphrey, Fort Worth, a past president.

The Tarrant County Auxiliary presented Mrs. Renshaw with red roses and a horseshoe trimmed in $1 bills as the initial contribution to AMEF.

Post-Convention Executive Board Meeting

The new Executive Board met for breakfast Wednesday, following the President's Party on Tuesday evening.

New officers, committee chairmen, and council women were introduced and packets of program material presented the incoming county presidents as guides for the work ahead. Mrs. H. S. Renshaw, President, presided.

Mrs. John D. Gleckler was named to serve as the dean of delegates to the convention of the AMA Auxiliary in New York and aid Mrs. Renshaw in securing delegates.

The Nominating Committee was elected. Members are: Mrs. Richard C. Bellamy, Liberty, chairman; Mrs. George Turner, El Paso; Mrs. G. G. Zedler, Austin; Mrs. Y. C. Smith, Sr., Corpus Christi; Mrs. Guy E. Knolle, Houston, Mrs. Dan B. Hamill, Corsicana; and Mrs. Robert Sparkman, Dallas.

Provisions were made to continue the work of the committee screening Auxiliary files. The resolution of the Treasurer for the deposit of Auxiliary funds, audit, and bonding of the Treasurer was adopted.

Mrs. Renshaw announced the School of Instruction would be in Austin at the Association building on September 25 and the Executive Board would meet the following day.

The meeting adjourned following the singing of the benediction by Mrs. J. H. Steger of Fort Worth.

Gifts of Silver for Association

Two gifts of silver have been presented recently to members of the Texas Medical Association for use in the Austin headquarters building.

A silver tray was accepted by Dr. Milford O. Rouse, Dallas, from Mrs. Richard C. Bellamy, Liberty, at the President's Dinner Party at the ninetieth annual session in Dallas, marking the close of their year as presidents of the Association and the Auxiliary respectively. The tray is a gift from Dr. and Mrs. Bellamy.

In recognition of Doctor's Day, members of the Auxiliary to the Travis County Medical Society honored the doctors by purchasing a pair of sterling silver compotes. Mrs. Robert B. Morrison, Austin, auxiliary vice-president, made the presentation to the society president, Dr. C. H. McCuistion, Austin, at the March meeting, in the Association building, where the compotes will be housed.

RECENT DEATHS

DR. CARL E. MANGUM

Dr. Carl Eugene Mangum, Wichita Falls, died March 23, 1957.

Born May 1, 1902, in Vega, Dr. Mangum was the son of E. L. and Cordelia (Black) Mangum. After attending the public schools in Trent, he received a bachelor of arts degree at Baylor University, Waco, in 1922 and a doctor of medicine degree at the University of Texas Medical Branch, Galveston, in 1926. He served an internship at City Hospital, Cleveland, Ohio, in 1926-1927 and a residency at Wichita General Hospital, Wichita Falls, 1928-1931. He remained in Wichita Falls, where he was active until his death.

DR. CARL E. MANGUM

Dr. Mangum was twice secretary of the Wichita County Medical Society, to which he had belonged since 1928, and was a member of the Texas and American Medical Associations. He was a member of AKK medical fraternity and the Methodist Church.

Miss Helen Peters of Little Rock and Dr. Mangum were married February 26, 1931, in Fort Worth. Mrs. Mangum and their two children, Mrs. B. H. Kirkland, Jr. of Wichita Falls and Carl B. Mangum of Fort Worth; his mother, Mrs. Cordelia Fields, Houston; a brother, Leon Mangum, Graham; and a sister, Mrs. Alice Ware, San Antonio, survive.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

DR. CURTIS ATKINSON

Dr. Curtis Atkinson, honorary member of the Texas Medical Association, died in Wichita Falls on February 17, 1957, just three weeks after the death of his wife.

Born in Oxford, Ind., in 1874, Dr. Atkinson was graduated from the University of Indiana, Bloomington, and Jefferson Medical College, Philadelphia, receiving his medical degree in 1900. He practiced six years in Oxford, Ind., and 11 years in Fort Collins, Colo. After three years of service with the Army during World War I, he located in Wichita Falls. There he was a member of the Wichita County Medical Society (of which he was president in 1934), the Texas and American Medical Association, the Presbyterian Church, and Rotary.

Dr. Atkinson married Miss Anna Laura Lindley on August 31, 1897; she died January 27, 1957. He is survived by a sister, Mrs. Alice Forsythe, Indianapolis, and a daughter-in-law, Mrs. Mary Atkinson, Ponca City, Okla.

DR. O. PERDUE SANDERS

Dr. Oscar Perdue Sanders, Dallas, died of diabetes March 11, 1957, at his home.

He was born in McComb, Miss., on June 22, 1915, the son of Mr. and Mrs. O. Perdue Sanders. He moved to Dallas in 1935, attending Highland Park High School and Southern Methodist University there. In 1941, he received his medical degree from Baylor University College of Medicine, and he did his postgraduate work in pediatrics at Charity Hospital in New Orleans and the Children's Medical Center in Dallas. He practiced in Dallas until his death, except for a 1953-1954 period spent in the United States Army Medical Corps as a major.

DR. O. PERDUE SANDERS

Dr. Sanders was on the teaching staffs of five Dallas hospitals, including St. Paul's Methodist, Children's Medical Center, Baylor, and Parkland. He was also a clinical instructor of pediatrics at the University of Texas Southwestern Medical School.

He was a member of the Dallas County Medical Society, Texas Medical Association, American Medical Association, Dallas Pediatric Society, Texas Pediatric Society, Dallas Southern Clinical Society, and the Cerebral Palsy Clinic. His other memberships included Phi Chi medical fraternity; the Calyx Club, Executive Club, Dallas Junior Chamber of Commerce, Oak Lawn Methodist Church, and Northwood and Oak Cliff Country Clubs. He was a thirty-second degree Mason.

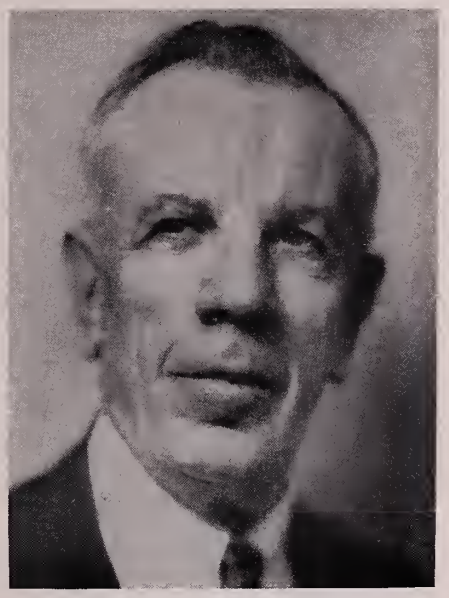
Dr. Sanders married the former Miss Mary Anne Smith, April 8, 1949, in Dallas.

He is survived by his wife, a daughter, Anne Michelle Sanders; a sister, Mrs. Cleburn Quaid, Lake Charles, La.; and a brother, Thomas Gray Sanders, Waterloo, Iowa.

DR. ROY F. SAUNDERS

Dr. Roy Farra Saunders, Fort Worth, died of cancer in that city on March 30, 1957, after a two-year illness.

Born on August 31, 1879, in Bonham, Dr. Saunders was the son of Dr. Bacon Saunders and Ida (Caldwell) Saunders. His father, president of the Texas Medical Association in 1897, was one of Fort Worth's earliest physicians; he is reported to have been the first doctor to perform an appendectomy and the first to apply a plaster cast in Texas.



DR. ROY F. SAUNDERS

Dr. Roy Saunders came to Fort Worth with his parents when he was 12. He received his medical degree in 1905 from the then Fort Worth University Medical Department, attended Jefferson Medical College in Philadelphia, and interned at St. Joseph's Hospital, Fort Worth. Father and son were surgeons at St. Joseph's for many years, the latter being chief assistant surgeon while the former was chief surgeon. After his father's death in 1925, Dr. Roy was chief surgeon for the Fort Worth and Denver Railway Company for a time. During World War I, he served as a Medical Corps major.

He was a life member of the American College of Surgeons, American Medical Association, honorary member of the Texas Medical Association, honorary member of the Tarrant County Medical Society, member of Thirteenth District Medical Society; a Shriner; and a member of St. Stephen Presbyterian Church in Fort Worth.

Dr. Saunders and the former Miss Kate Guthrie were married in Fort Worth on April 23, 1907.

He is survived by his wife; a daughter, Mrs. Jane Saunders Jary; a grandson, Roland Saunders Jary; and a sister, Mrs. C. D. Reimers, all of Fort Worth.

DR. C. W. HOEFLICH

Dr. Carl William Hoeflich, Houston anesthesiologist, died March 3, 1957, of coronary occlusion.

Born October 21, 1881, in Klagenfurt, Austria, Dr. Hoeflich came to the United States with his parents, Franz W. and Josephine Hoeflich, in 1889. After high school he studied at Massey Business School, Houston, to qualify for the entrance examination at the University of Texas Medical Branch, Galveston, where he went one year. He received his doctor of medicine degree from Tulane University in 1906 and remained in New Orleans to serve an internship at Touro Infirmary. After a brief stay doing general practice in Brenham, Dr. Hoeflich opened his practice in Houston. About 1914 he began specializing in skin diseases and the genitourinary tract, but when optic atrophy developed following a case of influenza in 1918 and he went to New York for eye care, Dr. Hoeflich studied anesthesia, which was the specialty in which he became well known in Houston and nationally.

Dr. Hoeflich helped to organize the Texas Society of Anesthesiologists, of which he was the first president. He also was president of the Anesthesiology Section of the Southern Medical Association and of the International Anesthesia Research Society; he was a representative of the latter organization to the first Inter-Anesthesia Congress held in Mexico. He was a member of the American Society of Anesthesiologists and of the American Board of Anesthesiology, and consulting professor of anesthesiology at Baylor University College of Medicine.

DR. C. W. HOEFLICH

He belonged to the Harris County Medical Society and related organizations, Texas Medical Association (being elected to honorary membership in 1951), American Medical Association, Houston Surgical Society, and Alpha Kappa Kappa medical fraternity. He was a member of the Catholic Church, Knights of Columbus (fourth degree), Catholic Physicians Guild, Holy Name Society, Sons of Herman, and Woodmen of the World. He was on the honorary staffs of St. Joseph's and Hermann Hospital.

Dr. Hoeflich and Miss Dora M. Werner were married September 9, 1912, in Houston. Mrs. Hoeflich died January 21, 1956. Surviving "Pop" Hoeflich, as he was known to most of his friends, are two physician sons, Dr. Werner F. A. Hoeflich of Houston and Dr. Bert J. Hoeflich of Eugene, Ore.; a third son, C. W. Hoeflich, Great Neck, N. Y.; one daughter, Mrs. William H. Scott, Jr., Houston; and 11 grandchildren.

DR. D. M. RUMPH

Dr. Demetrius Maltravis Rumph, Mansfield, died there of coronary occlusion March 24, 1957.

Dr. Rumph was a native of Alexander, Erath County, the son of Major David M. and Eliza Ann Rumph, and was born September 14, 1883. He attended grade and high school in Stephenville and Sam Houston Normal College in Huntsville. He obtained his medical education at the University of Texas Medical Branch, Galveston, and Memphis Hospital Medical College, Memphis, Tenn., from the latter of which he was graduated in 1909. He served an internship at City Hospital, Memphis. After beginning his practice in Carbon, Dr. Rumph moved in 1913 to Fort Worth, where he was active the rest of his life. He lived in Mansfield, near Fort Worth.

DR. D. M. RUMPH

A member of Tarrant County Medical Society, Thirteenth District Medical Society, Texas Medical Association, and American Medical Association, Dr. Rumph was medical examiner for Selective Service during World War II and served many years on the City-County Hospital Board, being chairman when he retired from the board. He was a past master of Masonic Lodge 1244, had served on the Fort Worth City Council and School Board, and was a member of the Methodist Church.

Miss Effie May Griffith and Dr. Rumph were married July 7, 1909, in Mansfield. Mrs. Rumph; a son, J. M. (Travis) Rumph, Mansfield; and a sister, Miss Mary Rumph, Fort Worth, survive.

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New Principles of Ethics

What lay behind adoption of the 10 simple broad principles of medical ethics adopted by the House of Delegates of the American Medical Association in its general session in New York City, June, 1957?

Following the revision of the Constitution and By-Laws of the American Medical Association some 10 years ago, which revision was submitted to the House of Delegates by a special committee of which I happened to be a member, there began to appear resolutions on the floor of the House of Delegates requesting that the code of medical ethics under which the American Medical Association then operated also be revised. The special committee previously referred to was made a special committee of the House of Delegates whose function was fact finding and advisory to the House; this committee later was made a council.

In 1953 the House of Delegates mandated to the Council on Constitution and By-Laws the request to revise what was then called the "Code of Medical Ethics." The Council realized that it had a tremendous task, for the reason that when in revision you depart from that to which members of the medical profession are accustomed to refer, you need a good reason for such departure or you will get a rejection by the House of Delegates.

After many meetings and arduous and painstaking consideration the council realized that a great deal in the code was verbiage of medical etiquette or manners of one doctor

EDITOR'S NOTE: *The new Principles of Medical Ethics referred to by Dr. Pickett, who is chairman of the Council on Constitution and By-Laws of the AMA, is printed in the Organization Section of this Journal.*

to another, having nothing to do with medical ethics. In 1955 the council presented to the House of Delegates at the Boston interim session the "Proposed Principles of Medical Ethics and Precepts of Manners." In this booklet medical ethics was separated from etiquette or manners. The council also attempted, because of so much demand, to spell out that which the Principles of Medical Ethics and Precepts of Manners was supposed to cover.

This was presented to the House of Delegates by me as acting chairman of the council. The report was referred to the Reference Committee on Constitution and By-Laws, Dr. Frank Krusen, chairman.

After an all day session of the reference committee it was suggested by a member of the Board of Trustees that the proposed principles and precepts be laid on the table to be brought up at the annual session and that in the meantime the Judicial Council and Council on Constitution and By-Laws have a joint meeting and discuss objectionable features and needed corrections.

As mandated, the two councils met jointly in April, 1956, in Chicago. Also present were members of the law department of the American Medical Association. As we considered the booklet of proposed principles it was pointed out that in the council's eagerness to spell out as nearly as possible what the principles and precepts were supposed to cover, we had added much verbiage which created a danger of the American Medical Association running afoul of law. It was suggested that a brief statement of principles upon which the Judicial Council could place interpretations covering a given situation in a given state or territory would serve the American Medical Association better.

After lengthy discussion this thought was adopted and a joint committee of the two councils drafted the 10 proposed simple broad principles which were completely divested of medical etiquette. All members of the medical profession were given an opportunity to study the principles and give the Council on Constitution and By-Laws their reactions, favorable or unfavorable. The Judicial Council had no part after the setting up of the 10 broad principles; all hearings and revisions were made by the Council on Constitution and By-Laws. The final draft was submitted to and adopted by the House of Delegates of the American Medical Association in regular session in June, 1957.

What caused the objections to the 10 simple principles which prevented an earlier adoption by the House of Delegates?

There are two main reasons that may be offered and under each head many subobjections which will not be developed here. The first main reason was there was a feeling among the medical profession over America that if the brief simple principles were adopted, we would somehow lose the benefit of the valuable explanatory reports and opinions published by the Judicial Council during the past 50 years. This was overcome only by displaying the fact that the Judicial Council had ready for use a complete annotation of the principles covering prior interpretations of the Judicial Council. It was also shown to the House of Delegates that in the 10 simple broad principles the Council on Constitution and By-Laws had covered everything in the former code of medical ethics, leaving out only extra verbiage and that part pertaining to medical etiquette.

In the second place there was a feeling among many that the 10 broad principles were not specific enough in setting out do's and don't's, which is the prerogative of the Judicial Council. There was in the final session little objection offered before the Reference Committee on Constitution and By-Laws and none before the House of Delegates to the leaving out of the so-called medical etiquette or precept of manners, but in the main the profession preferred it.

As the preamble states, "These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws but standards by which a physician may determine the

propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public."

—B. E. PICKETT, SR., M. D., Carrizo Springs.

The Medical Profession and The American Cancer Society

It is a source of satisfaction to some of us who have been watching the development of the larger national health organizations with a wary eye to know that one at least, the Texas Division of the American Cancer Society, is or can be controlled by physicians. It was organized at our Texas Medical Association meeting in Galveston in 1946. Should it take the wrong track, medically speaking, we have only ourselves to blame.

In order that we can better understand the structure of the American Cancer Society as this structure affects us and our patients (and it does every day) we should recognize that the national board of directors of the American Cancer Society is composed approximately 50 per cent of laymen and 50 per cent of medical men with a physician as president. Its key committees, the ones most likely to affect us, are:

	Composition	
	M.D.	Other
Medical and Scientific Committee	34	
Research Advisory Council	8	8
Service Committee	15	3
Executive Committee	7	15
Total, All Standing Committees	150	42

In Texas, the medical man has an even greater influence and thus responsibility in the direction of the affairs of the Texas Division. The directors of the Texas Division are 50 per cent medical and 50 per cent lay with a physician as president. Its key committees and proportionate membership are:

	Composition	
	M.D.	Other
Executive Committee	16	15
Educational Committee	9	5
Service Committee	6	6
Budget and Finance Committee	5	5
Bylaws Committee	4	3

Thus, on the important working committees and on the Executive Committee itself, there is a medical preponderance of membership which certainly should give our profession the voice it needs in organizations such as this.

In addition, no county unit of the American Cancer Society is formed without the help of the president of the county medical society. If a cancer committee is not appointed to work with the local groups of interested laymen on the local board of directors, we must take some of the responsibility if medically unsound propaganda is released. On this particular subject, incidentally, every film and every piece of literature that is distributed is first cleared and accepted by the American Medical Association and appropriate specialty groups.

In Texas, the Texas Medical Association is asked for clearance on all lay materials through its Committee on Cancer. The film, "Breast Self-Examination," for example, is never shown to lay groups unless a member of the medical profession is present. The release of the film in Texas was delayed two years until each county medical society approved it for lay use.

It is indeed timely and advisable that attention be called to the policies of certain lay-sponsored health organizations that tend to infringe on the private practice of medicine. It is our obligation and duty as physicians to counsel with and advise the laymen who direct these organizations. Usually, these individuals are sincerely interested in the welfare of the people of their community and under proper enlightenment and guidance they will cooperate wholeheartedly with the medical profession.

Fortunately, the organization setup of the Cancer Society in Texas makes it possible for the medical profession to assume the major responsibility in determining all policies of the Texas Division of the American Cancer Society.

It is anticipated that the cooperation between the Texas Medical Association and the Texas Division of the American Cancer Society

will be even greater in the future than it has been in the past because both the laity and the interested members of the medical profession are insistent that complete medical clearance for all phases of the society's operation be effected.

—J. L. COCHRAN, M. D., San Antonio.

Control of Poisoning

In November, 1953, the nation's first poison control center was established in Chicago. Since that time, such centers have been springing up throughout the country in attempts to cut the mortality and morbidity of poisoning. Texas currently has a functioning center in Austin, and centers are being formed in Dallas, Fort Worth, and Houston. Moreover, financial costs have proved surprisingly small.

That the problem truly needs attention is evident from available statistics, most of which are based on deaths and admission into hospitals and therefore do not reflect the complete picture of the less serious but nonetheless potentially dangerous poisonings. Poisonings not resulting in death may leave permanent damage. In Texas in 1955, poisonings caused slightly more than 2 per cent of all accidental deaths (112 of 5,379 deaths). The peak incidence was in the age group less than 5 years old (38 deaths), but the age group 20-29 years had 20 deaths from accidental poisoning, 30-39 years 11 deaths, 40-49 years 18 deaths, and 50-59 years 12 deaths,* so that the problem certainly is not one just for the pediatrician.

Nevertheless, for Texans who are concerned especially with care of children, it should be noted that the annual death rate per 100,000 for accidental poisoning of children less than 5 years of age during the period 1949-1950 was not far from 4, whereas the rate for the entire United States was only 2.6—only 10 states and the District of Columbia exceeded the Texas rate. During that two-year period, drugs (especially the salicylates and barbiturates) caused 33 per cent of these deaths throughout the United States; petroleum products caused 25 per cent; and material for external use (including lead, corrosive substances, and arsenic) caused 36 per cent of the deaths.†

The increased employment of poisons in industry, agriculture, medicine, and warfare has been responsible for modern day toxicologic problems. The detergents, insecticides, and medicaments which, when used as intended, contribute immeasurably to our current high standard of living can become instruments of death when improperly used.

A physician confronted with a puzzling diagnostic situation always should consider the possibility of poisoning, even though there is no definite history of ingestion of or contact with a known poisonous substance. He should be familiar with the most common symptoms of the most common poisons and be prepared to assist in terminating exposure to the poison, administer antidotes, and apply general supportive measures as called for under the circumstances. Ready access to reference material on poisoning and occasional brushing up on the subject may prove lifesaving in an emergency. Doctors not served by a local poison control center in their own area might consider the advisability of sponsoring or cooperating in the establishment of such a unit where specially trained personnel, selected equipment and supplies, and files of information on specific products as well as on poisonings in general can be immediately available. In the absence of such help, any Texas doctor may call the Occupational Health Division of the State Department of Health in Austin (GR 6-2681; after office hours, GL 2-1334) for professional aid.

The obligation of the physician does not stop with diagnosis and treatment of poisonings. He needs to educate parents and children on the potential hazards of household preparations and suggest means of using and storing them so they will do no harm. Likewise, he needs to be-

Texas Mortality—1955; Summary of Accidental Deaths, Austin, Texas State Dept. of Health, Bureau of Vital Statistics.

†*Bain, K.: Death due to Accidental Poisoning in Young Children, J. Pediat. 44: 616-623 (June) 1954.*

come familiar with the agricultural and industrial hazards peculiar to his community and help to protect those likely to come in contact with them. (Information on economic poisons has been distributed in recent weeks by the Committee on Rural Health and Doctor Distribution of the Texas Medical Association.) He needs to give careful and specific directions when medicines are prescribed and to use judgment in the quantity ordered. Too, he needs to report promptly and completely to the local health department such cases of poisoning as come to his attention so that epidemiological data can be built up to guide future preventive programs. Recommendations worked out mutually by local medical societies and health departments can be of great value.

The encouraging aspect of poisonings is that so many of them would be preventable if adequate precautions were taken. It is up to all of us to take those precautions.

Committees Start Their Year

Committees which will serve the Texas Medical Association during the current year are listed in the Organization Section of this *Journal.* Among them are two entirely new committees, one which has been given independent status after functioning previously as a subcommittee, and three which have been changed from special to standing status.

The two new special committees, that on military and veterans affairs and that on nuclear and atomic medicine, were suggested by the outgoing President, Dr. Milford O. Rouse, with recognition of the increasingly important problems arising in these areas.

The committee that emerged from being a subcommittee of the Council on Medical Economics to become a special committee in its own right, the Committee to Study Contract Medicine, is expected to study various aspects of the corporate practice of medicine, including encroachment of the Veterans Administration and other governmental units into medical practice.

The Committees on Scientific Exhibits, School-Physician Relationships, and Rural Health and Doctor Distribution were given standing status so that they can have continuity of membership that leads to long-range planning and execution.

Another committee, which is not listed with the others but which has an important assignment, is that to study and suggest improvements in procedures of the House of Delegates. Such a committee, to work under the Speaker of the House, was recommended by two of the reference committees at the 1957 annual session.

Several councils and committees of the Association already have met to map their programs for the year. Most of them are looking forward to conferences in Austin at the time of the Executive Council meeting the week end of September 7-8.

It might be interesting, when one looks at the array of committees that carry on the work of the Texas Medical Association, to know that practices of effective state medical associations differ markedly in regard to committees. In Ohio, for example, only 16 committees carry on the work of the state medical society, whereas more than 70 are listed for Michigan. The chief attribute of committees in any successful organization must be that they act enthusiastically and with insight into the problems assigned to them.

Few if any state societies are more fortunate than the Texas Medical Association because with rare exception the committees are active, prompt, and well informed. The committees which are occasionally slow or function poorly often are handicapped by a chairman who is "too busy" or uninterested. It has been said that no committee is stronger than its chairman and no association is stronger than its committees. As long as our organization has capable, dedicated committeemen such as we now have, it will rank at the very top of the state medical organizations of America.

President's Page

AM I MY BROTHER'S KEEPER?

"Am I my brother's keeper?" has been repeated and answered many times. Certainly in our profession the answer is and should be, "Yes."

The thoughtful physician who speaks words of encouragement to the ambitious school boy or school girl planning to enter the profession of medicine, dentistry, nursing, or any other allied field is making a contribution to the healing arts. A few days ago one of our busier doctors in one of our larger cities spent almost an hour with two strangers. One of the strangers was a young lady just out of high school. The other was her mother. The young lady could not make up her mind about her future, but she thought she wanted to be a laboratory technician. The busy doctor made appointments with a laboratory school and two laboratories and helped escort her through them. The young lady was so much impressed that she has since recruited two other graduates to enter the same field.

The physician who spends many laborious hours teaching nurses, students, interns, and residents both the art and science of medicine is being his brother's keeper. If our nurses and young physicians entering their careers do not have the proper attitude toward their enormous duties, their teachers, councilors, and advisers must share the responsibilities for their shortcoming. The average young citizen in any field is anxious to do what is right and honorable. If properly directed and motivated, he will be just as eager to uphold the lofty ideals and principles of his profession as were his predecessors.

The physician in any community large or small who spends time and energy helping the new doctor in town get started toward a successful and ethical practice is contributing greatly to both his community and his profession. Nothing gives a young doctor more pride and confidence than a helping hand or a pat on the back from a would-be competitor who is better established in that particular community. The practice of medicine is a cooperative enterprise with one

great function. That function is to give to the people the very best medical care at the lowest possible cost. Only by helping those who follow us can such a policy continue to succeed.

The kindly ophthalmologist who spent 30 minutes on the telephone at midnight helping a stranger locate a doctor to relieve his thrombotic hemorrhoids was being his brother's keeper. The newcomer in town, knowing no doctors, consulted the phone book and called the first name he saw. He felt much more kindly toward his new home town and the medical profession after receiving the help of the ophthalmologist. It would have been less time consuming for the first doctor to say, "That is not my field of practice. Call someone else." But no one dedicated to his profession would have been able to sleep had he done such a thing.

The unselfish physician who leaves the banquet table; misses a golf game, a delightful hunt, or a fishing trip; or delays his much needed vacation to relieve suffering or to allay the fears and anxiety of the family concerned is certainly being his brother's keeper.

The thoughtful physician who senses undue financial strain on a family from multiple illnesses or consecutive unfortunate "breaks" never hesitates to reduce his fees, donate his time, or see to it that his patient is safely in a charitable institution which is built for such people. To do less would be failing in one's duty to see that the sick and injured receive proper medical care regardless of their ability to pay.

The medical profession as a whole and the family doctor in particular hold enviable positions in the hearts and minds of the average American citizen. This position was not gained by simply talking, nor did it come about by accident; but it was attained by many decades of active devotion to duty by many thousands of energetic, sympathetic men and women of medicine. We shall deserve or maintain this reputation only so long as we continue to be our brother's keeper.

Denton Kerr

ORIGINAL ARTICLES

Poisoning: A Four Year Survey

HAROLD L. DOBSON, M. D.;
C. W. DAESCHNER, M. D.;
RAYMOND MONDSHINE, M. D.;
NIC TENG, M. D.;
HARRY PREBLE, M. D.; and
J. M. KNUDSEN, M. D.

Houston, Texas

EACH YEAR 8,500 persons die of poisoning in the United States. Of these, 1,450 die of accidental poisoning from toxic solids and liquids, while an equal number die of accidental poisonings with gases and vapors. There are 3,500 suicides involving solid and liquid poison and 1,900 utilizing gases. In addition there are 80 deaths from therapeutic misadventures with drugs, 43 deaths from venoms and insect bites, and 48 homocides using poisons. These

Dr. Harold L. Dobson and his co-authors are from the Departments of Medicine and Pediatrics, Baylor University College of Medicine and Jefferson Davis Hospital, and from the Houston-Harris County Poison Control Center. This paper was presented for the Section on Internal Medicine April 30, 1957, at the Texas Medical Association annual session in Dallas.

A survey of 323 poisonings treated at Jefferson Davis Hospital (1952-1955) shows that the largest group is accidental poisoning in the 1 to 3 year age group. Ingestion of hydrocarbons is most frequently encountered with lye, salicylates, and heavy metals being next. In adults, suicides, addiction and habituation, and barbiturate overdosage account for the bulk of poisonings.

averages are from the official mortality statistics for the five year period 1950 through 1954.[18] The rate of accidental poisoning in the United States is about four times that in Great Britain.[1] Texas is a leading contributor to the statistics of poisonings in this country, standing eleventh among the states with a death rate of 3.8 deaths per 100,000 population as compared with the national average of 2.6.[1] Since most of these deaths are preventable, there has been a concerted effort to reduce the number and mortality rate by a variety of agencies. One of the most effective devices has been the formation of poison control or information centers in urban areas.[14] An excellent review of this subject recently has been published in the *Journal of the American Medical Association.*[11]

As more chemical products are placed on the retail consumer market, the problem of poisoning becomes more complex. Many of these products contain several potentially toxic substances, and often the most dangerous component is not recognized as being toxic.[19] In addition, the insecticides and other chemical products which are receiving increasing usage in

TABLE 1.—*Poisoning Cases Admitted to Jefferson Davis Hospital,* 1952-1955.

	Total Admissions	Deaths
Adults	62 (19.1%)	12 (19%)
Children	261 (80.9%)	2 (0.77%)
	323	14 (4.33%)

agriculture contain highly toxic materials. In Texas the problem is further complicated by the rapid growth of industries using and manufacturing a wide variety of chemicals. It is not possible to cover all facets of this complex problem; therefore, a review of the experience at Jefferson Davis Hospital, a city-

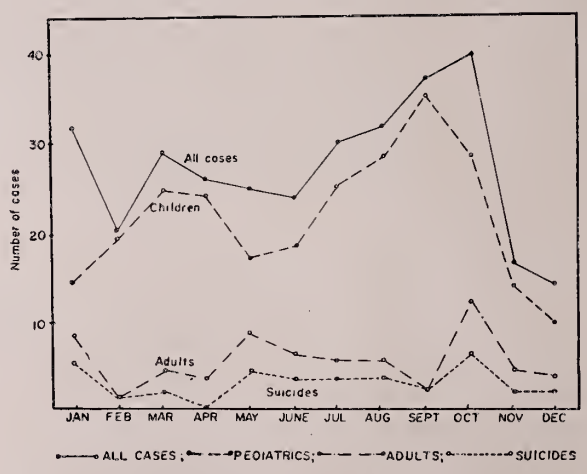

Fig. 1. The total monthly incidence of poisoning for the four year period, 1952-1955, at Jefferson Davis Hospital.

county institution, is presented since it is believed that experience there reflects the problem as it is encountered in any community. The period of 1952 through 1955 was selected because of the increasing interest in the problem of poisonings, especially by the Department of Pediatrics. The admissions for poisonings during this period are shown in table 1. It should be emphasized that for every patient admitted to the hospital at least 3 were treated on an outpatient basis, as only those with obvious symptoms or a definite history of poisoning were admitted. The great majority of patients were in the pediatric age group, which is consistent with the experience of others.[6, 10, 12, 18] The seasonal incidence is shown in figure 1.

PEDIATRIC POISONINGS

All the pediatric poisonings reported in this series were accidental, and the majority occurred in the toddler age group (12 to 36 months) with the peak at 2 years as shown in table 2. This has been the experience reported elsewhere.[3, 12] The sex and race of the pediatric age group are shown in table 3. A majority of the patients were Negro. This is out of proportion to the ratio of Negro to white patients seen in the pediatric clinic but is the usual finding according to the report of Bain.[1] The types of poisonings ingested by children are shown in table 4.

TABLE 2.—*Age Range of Pedriatric Poisoning Patients.*

Age	No. Patients
0-6 mo.	2
7-12 mo.	30
13-18 mo.	84
19-24 mo.	85
25-30 mo.	19
31-36 mo.	18
4 yr.	17
5 yr.	4
6 yr.	4
8 yr.	1
12 yr.	2

TABLE 3.—*Sex and Race of Pediatric Poisoning Patients.*

	Negro	White	Latin American	Total
Female	95	17	13	125
Male	105	20	11	136
Total	200	37	24	261

The petroleum hydrocarbons (kerosene, gasoline, red furniture polish, insect sprays, and lighter fluids, plus the pine oil distillate fractions) account for two-thirds of the pediatric poisonings and one-half of the entire series. The incidence in this series is higher than previously reported,[1, 3, 4, 12, 16] but is in agreement with the conclusion of Bain[1] that hydrocarbon poisoning is much more common in the South mainly because of the high incidence in Negro children. These substances are often readily available because of the common use of kerosene stoves and lamps in their homes.

TABLE 4.—*Poison Ingested by Pediatric Patients.*

Poison	Negro	White	Latin American	Total	Deaths
Hydrocarbon	141	21	16	178	2
Lye	12	0	0	12	0
Salicylate	4	4	3	11	0
Heavy metal	5	4	2	11	0
Iron	9	0	0	9	0
Phosphorus	4	2	0	6	0
Barbiturate	6	0	0	6	0
Phenol	2	1	1	4	0
Miscellaneous	18	4	2	24	0
Total	201	36	24	261	2

The principal symptoms seen in children who ingest a petroleum hydrocarbon product are coughing, choking, gagging, and often vomiting. Lethargy may appear in as short a time as 15 minutes after ingestion and usually clears in four to six hours, though in patients with severe pneumonic changes lethargy may persist for several days. The bulk of experimental evidence[8, 15] suggests that direct contamination of the tracheobronchial tree is the principal source of the pulmonary inflammation, which is the most important complication associated with hydrocarbon ingestion. This view is supported by clinical studies in which roentgenographic evidence of pulmonary inflammation has been demonstrated within 15 to 30 minutes after hydrocarbon ingestion. It is for this reason that gastric lavage is considered to be of little benefit to the patient and may predispose to further aspiration.

In any given case it may be impossible to be certain that a petroleum hydrocarbon has been ingested. In all suspected hydrocarbon ingestions the child should be hospitalized and observed for at least 24 hours. Thorough physical examination and roentgenographic study of the chest should be carried out at the time of admission and repeated at 6 and 24 hours. If no pathologic changes are evident at the end of this time, it is unlikely that there will be pulmonary complications. Two-thirds of the patients who subsequently show evidence of aspiration will have minimal changes in the chest roentgenogram within the first two hours, but the physician reading the film must be alert to the importance of such early changes as accentuation of bronchovascular markings, peripheral emphysema, and patchy infiltration.[5] These children should be started on therapeutic doses of a parenteral antibiotic agent as soon as they are seen. It is important that this be started early rather than

delaying until the chest roentgenogram becomes abnormal. A more detailed report of the hydrocarbon poisonings seen in this hospital has been published.[5]

Ingestion of salicylates in excessive quantities is second only to the hydrocarbons as a cause of poisoning in children in the United States.[1] The products involved here are aspirin, sodium salicylate, and methyl salicylate (oil of wintergreen). These produce a transient initial stimulation of the respiratory center with marked hyperpnea and respiratory alkalosis. In addition, there is interference with carbohydrate metabolism so that ketone body production and a metabolic acidosis usually ensue.[7] The early and continued marked hyperventilation leads to extensive pulmonary water losses and dehydration which complicate renal compensatory efforts. There is definite value in the use of early gastric lavage to remove as much salicylate as possible. Adequate fluid replacement is imperative depending principally upon glucose in water intravenously. As a rule alkalizing agents are unnecessary, and sodium chloride is given only as necessary to maintain electrolyte homeostasis.

Lye ingestion occurs far too frequently and is seen predominantly in the Negro population. In these patients the use of lavage is undesirable since there is little chance of removing any of the alkali, and there is an excellent chance of doing further damage to the eroded esophageal mucous surfaces with the lavage tube. Necessary symptomatic and supportive therapy is given during the acute phase.

After the burns have healed, the esophagus is studied radiographically by means of a thick barium swallow, and if areas of annular constriction are present, these are resected surgically. It is our belief that this approach is preferable to the use of bougie dilators, but this is an unsettled point. In our experience therapy with cortisone and related steroids is of no value and may lead to serious complications.

Ingestion of large amounts of iron, especially in the form of ferrous sulfate, leads to gastrointestinal bleeding, passage of gastrointestinal mucosa, shock, and possibly jaundice within 48 hours after ingestion. These symptoms occur because ferrous sulfate, in concentrated form, leads to damage of the gastrointestinal mucosa with edema, hemorrhage, ulceration, and occasionally necrosis.[2] Early lavage is definitely desirable whereas other supportive treatment in the form of vasopressors and blood transfusions are used as indicated.

Phosphorus poisoning usually occurs as a result of ingestion of roach paste. Marked abdominal pain, nausea, and vomiting are present early, and there is often a garlic-like odor to the breath. When the patient is seen soon after eating the phosphorus, gastric lavage is of value if the patient can tolerate the procedure. Control of pain and vomiting along with adequate fluid replacement should be accomplished as quickly as possible. Liver damage usually develops after 24 to 48 hours and may proceed to acute yellow atrophy. This is treated with glucose, adequate fluids, and vitamins as in other types of generalized liver damage. As a late sequela these patients may develop aseptic necrosis of the bone.

The heavy metal poisonings include mercury, arsenic, lead, thallium, cobalt, nickel, antimony, gold, and cadmium ingestion and inhalation. At the present time only mercury, arsenic, and thallium present a major problem. Thallium is an ingredient in several insecticides in 3 per cent concentration, which is quite toxic. This has been impregnated into cookie and cake crumbs in some of the preparations on the market in Texas. As a result there has been an epidemic of thallium poisoning with a mortality rate of about 10 per cent and another 10 per cent of the victims suffer from severe neurologic sequelae. The bulk of thallium poisonings in the Houston area have occurred since the period covered by this report. Symptoms may not appear for a period of days to weeks with epilation, severe neurologic lesions, dermatitis, and blindness being common clinical manifestations. If the patient is seen soon after ingestion, gastric lavage should be carried out as there is no known effective antidote for thallium.

Mercury and arsenic poisonings are best treated with BAL (British anti-lewisite or dimercaprol), which should be started at the earliest possible moment. The recommended initial dose is 2.5 mg. per kilogram of body weight repeated every four hours to a total dose of 15 mg. per kilogram in the first 24 hours. Smaller doses for a period of one to two weeks then may be given. Gastric lavage is of value early in removing the unabsorbed portion of the toxic substance. In our experience there has been more difficulty with BAL overdosage than there has been with heavy metal toxicity, primarily because the commercially available preparation of BAL is labeled in such a way that mistakes often were made in the measurement of the dose.

In addition to the previously enumerated poisonings, children often raid the medicine cabinet and become intoxicated with a great variety of drugs. Parents and physicians should remember that children in the 1 to 3 year age group will eat or drink anything they can put their hands on, whether it tastes good or not.

In studying poisonings as they occur in the pediatric age group, one is impressed with the fact that the majority of poisonings occur from substances commonly found around the home that are not regarded as being poisonous. It also should be noted that these materials usually are found (a) in the cabinet under the kitchen sink, (b) along the walls of the garage, and (c) in the medicine cabinet. One is also impressed with the low death rate in this

series; however, the morbidity rate is quite high in many of the patients and the degree of anxiety induced in the parent is extreme.

ADULT POISONINGS

The problems associated with adult poisoning are much different as may be seen in table 5. Accidental poisoning is rare, and the bulk of patients either are suicides or have problems associated with addiction and habituation.

The barbiturate toxicity group (table 5) includes those people who were admitted with barbiturate intoxication in whom suicide and/or habituation were suspected but could not be proved. It is our belief

TABLE 5.—*Classification of Adult Poisonings.*

	No.	Deaths
Suicide	34	9
Addiction and habituation	13	3
Barbiturate	7	0
Therapeutic and accidental	4	0
Industrial	1	0
Unknown	3	0
Total	62	12

that these three general groups—suicide, addiction and habituation, and barbiturate intoxication—are closely related, and all adult deaths in this series fell into one of these groups. Suicide by poisoning is found mainly in the white population and in our experience was only slightly more common in the female (table 6). Suicides may be divided into two groups: (a)

TABLE 6.—*Sex and Race of Adult Poisonings.*

	Male	Female	Total
White	21 (13)	23 (14)	44 (27)
Negro	4 (1)	9 (5)	13 (6)
Latin American	3	2	5
Total	28 (14)	34 (19)	62 (33)

Attempted suicides shown in parentheses.

those who are determined to die and often achieve their objective and (b) those who wants to commit suicide but do not want to die. In these latter persons the suicide attempts are often ineffectual but attention getting, and the patient would be very disappointed if he were to die. This is illustrated in table 7 in which it is seen that persons who have made repeated attempts at suicide have a much lower success rate than those who are determined to die.

The drugs involved in the three main groups of adult poisonings are shown in table 8. The barbiturates cause more trouble than any other agent, probably because they are easily available and are pleasant to take. The ideal treatment of barbiturate intoxication is unsettled. There is, however, no argument concerning the need for careful attention to fluid and electrolyte balance, use of oxygen, maintenance of a patent airway, and other symptomatic therapy.[9, 13]

TABLE 7.—*Adult Poisoning Suicides.*

	No.	Deaths
Known previous suicidal attempt	8	1
No previous attempt	26	8
Total	34	9

These 9 deaths are:
14.5% of all adult poisonings
75.0% of all adult deaths
64.3% of all deaths

Gastric lavage is of value in removing the excess material from the stomach if the patient is seen early. All too often, however, the lavage tube becomes clogged with the remains of the gelatin capsules. Whether or not to use stimulants and the type of stimulant selected remains a controversial point. It is generally agreed that the person who is not too deeply depressed may be allowed to sleep off intoxication as long as he is aroused at intervals and turned to prevent pneumonia. Some feel that this therapy

TABLE 8.—*Principal Poisons Involved in Suicides, Addiction, and Habituation in Adults.*

Poison	Male	Female	Total	Deaths
Barbiturates	5	15	20	1
Mercury	3	3	6	1
Arsenic	3	2	5	3
Phenol	0	5	5	0
Bromide	1	4	5	1
Narcotics	3	1	4	1
Phosphorus	1	2	3	1

is best for all but those patients who have respiratory depression, whereas others believe stimulants should be used if the patient cannot be aroused. A third group thinks stimulants should never be used and that respiratory depression should be treated by artificial respiration.[9, 13]

In general, stimulant therapy is not recommended, but if it is used, the selected drug should be given only in quantities sufficient to produce muscle twitching and the return of deep tendon reflexes. No attempt should be made to restore consciousness by stimulant therapy as this too often will lead to convulsions.

The general principles of BAL therapy for heavy metal poisoning outlined in the pediatrics section also apply for adults except that the initial dose is usually 3 or 3.5 mg. per kilogram of body weight and a total dose of 20 mg. per kilogram in the first 24 hours is not unusual.

In the patients with suicidal or accidental poisonings due to heavy metal ingestion, acute anuria usually occurs, and particular caution must be taken to prevent injudicious parenteral fluid therapy which may lead to water intoxication. Usually there is rather marked liver damage as well as renal and gastrointestinal damage, and later neurologic symptoms often appear. Convalescence in these patients is often prolonged.

The picture presented by the suicidal patient who has taken bichloride of mercury is much different from that of the patient who is poisoned with mercury through industrial exposure. In industrial poisoning personality and neurologic changes along with oral lesions in the form of loose teeth, excess salivation, and metallic taste are more characteristic.

In the four year surveys of poisoning at this hospital, only 1 patient with lead poisoning was found in spite of a house and attending staff on the lookout for such cases. It was felt that possibly not all of the cases had been discovered; therefore, inquiries were made of other hospitals in Houston, and they reported a similar low rate. Apparently lead poisoning is not the problem in this area that it is in other parts of the country.[1]

Poisoning with opium derivatives and synthetic narcotics is usually the result of suicide attempt or of buying illegal heroin which is too pure, leading to overdosage. The general outline of symptomatic therapy for barbiturate intoxication may be followed; however, in narcotic poisoning there is a specific antidote: N-allylnormorphine (Nalline). Given in doses of 5 to 10 mg. intravenously as indicated, with a top dose of 50 mg. in 12 hours, there is usually prompt relief of respiratory depression. Again it should be noted that this drug does nothing to restore consciousness, and any attempt to restore consciousness using Nalline usually will give poor results.

Bromide intoxication was surprisingly common in our series and should be suspected in any patient who has an unexplained mental disturbance. The chemical determination of the blood bromide level is well within the capabilities of the clinical laboratory, and a blood level of 75 mg. per 100 cc. or higher in a patient with a compatible clinical picture is diagnostic. Treatment is aimed at replacing the bromide by means of vigorous chloride therapy. It is also imperative that the source of bromide be eliminated (which in some instances may not be as easy as it sounds).

EMERGENCY MEASURES

When the family first calls a physician about potential poisoning, it is best to insist that the patient be brought immediately to the nearest well equipped emergency room. As a rule, caution should be used in advising the parents to induce vomiting as this is contraindicated in certain instances (ingestion of caustic agents and hydrocarbons). The use of the universal antidote (mixture of strong tea, charred toast, and milk of magnesia) by the family is satisfactory, but valuable time may be wasted in its preparation. The ingestion of raw egg white and milk may be equally effective. It is imperative that the physician insist that the family bring the container of the poison to the hospital. If the composition of the commercial product is not known, the manufacturing company, the Texas State Department of Health, or the nearest poison control center can be called on. If information concerning therapy for a particular poison is not available, usually there are physicians (often pediatricians) in the community who are interested in poisoning and can be of help. Information concerning proper therapy also may be available through a poison control center or a medical school pharmacology department.

SUMMARY

A review and analysis of the poisoning cases admitted to a city-county general hospital for the years 1952 through 1955 have been presented. Of the 323 admissions 81 per cent were in the pediatric age group. All of the pediatric poisonings were accidental and two-thirds were due to hydrocarbon ingestion. In the adult group suicides, poisonings associated with addiction and habituation, and barbiturate overdosage accounted for 87 per cent of the cases. Only 2 deaths occurred in the pediatric age group, whereas there were 12 deaths in the adult group. Various factors in the etiology and therapy of the more common poisonings have been presented.

The experience reported here is different from that in a private hospital, but the difference is probably more quantitative than qualitative.

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ABSTRACT OF DISCUSSION

DR. CARL NAU, Galveston: The authors are to be commended for calling to attention so forcefully the problem of poisoning—particularly in the pediatric group in which 90 to 100 per cent of all cases are preventable. They have pointed out the relative frequency of petroleum products (kerosene) as the offending agent (in 70 per cent of our cases at the University of Texas Medical Branch). It seems, however, that the question of treatment for children who have swallowed kerosene is still argued. Dr. Dobson and his team seem to consider gastric lavage a hazardous form of treatment and likely to be of little benefit to the patient. Drs. Olstad and Lord* of Rhode Island, in reviewing the benefits of lavage, report a series of cases in which 74.6 per cent were lavaged. Of these, 35.8 per cent developed pneumonia, whereas when no lavage was done 52.9 per cent developed pneumonia.

It is apparent that our greatest need lies in the area of education of the people in the following matters:

1. What substances are potentially poisonous.
2. How contact with poisons can be prevented (especially in children). Poisons are found in 50 per cent of kitchens, 25 per cent of bathrooms, and 25 to 50 per cent of garages.
3. The importance of and techniques for immediate first aid measures by parents and/or other lay people.
4. Improved hospital treatment resulting from a better knowledge of the toxic ingredients of substances known only by a trade name and by the availability in the emergency room (or elsewhere) of all necessary information for the effective treatment of "poisoned" people.
5. The need for improved labelling of all potentially poisonous materials.

We are especially concerned with (1) drugs and medicines (aspirin, sleeping pills), (2) cosmetics and toilet goods, (3) shampoos, (4) hair curling solutions, (5) hair straightening solutions, (6) hair dyes, (7) cleaning, polishing, and sanitizing agents, and (8) pesticides.

The American Academy of Pediatrics for a number of years has attempted to focus public and medical attention upon the large number of preventable deaths occurring each year from poisons. Several years ago the academy proposed the idea of poison control centers, strategically located, adequately financed, and competently staffed, which would serve as clearinghouses for poison information. Such centers could furnish information about the composition of substances known only by trade name, the expected symptoms and clinical course, and the recommended method for most effective treatment. The academy has been joined in its effort by numerous agencies such as the American Medical Association, American Public Health Association, and Industrial Medical Association, but the problem is essentially one for the local community. The United States Public Health Service plans to set up a national center; Houston is setting up a local center. It is strongly urged that the medical profession offer leadership and guidance but that all community resources and interests be utilized. Experience has shown that community participation yields the most effective results.

*Olstad, R. B., and Lord, R. M., Jr.: Kerosene Intoxication, A.M.A. Am. J. Dis. Child. 83:446-453 (April) 1952.

Operating Room Hazards

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DEATH by anesthetic explosion is given heavy emphasis in media of public information, not only because it is the most dramatic of all surgical fatalities, but also because it is so unusual. Dramatic and newsworthy though death by anesthetic explosion may be, it is relatively rare and relatively infrequent among the causes of death of patients undergoing surgery.

Tragedies from fires and explosions have occurred in operating and delivery rooms ever since flammable anesthetic agents have been used. It is true that such accidents are rare and occur only once in approximately 80,000 to 100,000 anesthesias. However, definite hazards are present in places where flammable anesthetic agents are used. Therefore, definite precautions must be taken to avoid or, at least, to minimize further these catastrophes as there are more than 12,000,000 anesthesias administered in the United States annually.

The danger of fire and explosion is not limited to the field of medicine but is a factor in industry where flammable agents are used in the manufacture of many products. Industry has taken definite steps to minimize these hazards by improvements in the phys-

ical plant and by intensive instruction to personnel on safety measures. This practice has not been the general rule in most hospitals where flammable anesthetic agents are used. The hospitals alone cannot be accused of negligence along these lines. Until recently, recommendations made to hospitals for the prevention of fires and explosions have been so variable and controversial that the requirements have been difficult to fulfill. However, today, an agreement on the solution of many of these controversial problems has been reached.

Dr. George J. Thomos, associote professor of surgery ond chairmon, Section on Anesthesio, University of Pittsburgh School of Medicine, and directar, Departments of Anesthesia, St. Francis General Hospital ond Medicol Center Hospitals, presented this poper for the Sectian on General Proctice, April 29, 1957, at the Texos Medical Assaciatian annual session in Dallas.

Although anesthetic explosion is relatively rare, definite hazards are present wherever flammable anesthetic agents are used. The value of conductive floors, grounding, and wet towels is stressed for minimizing such hazards in anesthetizing locations. Also important are static electricity and humidity, as well as equipment and clothing. Thirty-five recommendations are given for safety in anesthetizing locations in hospitals.

FACTORS CONDUCIVE TO EXPLOSIONS

The three essential factors[1] required for the develment of an explosion are as follows:

1. *Combustible Gases or Vapors.*—In ordinary anesthesia practice, the gases or vapors are ethylene, cyclopropane, diethyl ether, and divinyl ether, or a combination of these. We must not exclude the nitrous oxide–oxygen–ether sequence, because this mixture is also flammable.

2. *Oxygen Supply.*—Oxygen is essential to all ordinary combustion. In anesthesia, oxygen is supplied pure, diluted in air, or in chemical combination with nitrogen in nitrous oxide.

3. *Ignition Source.*—Flammable mixtures require an ignition source for an explosion to occur. Ignition sources may be small flames, incandescent surfaces, local combustion initiated by catalysts, and electric sparks.

Factors 1 and 2 are essential to practical anesthesia. The third factor, the ignition source, is not essential and should be controlled or eliminated (table 1) if fires and explosions are to be avoided.

Open flames, such as those provided by alcohol lamps, Bunsen burners, matches, and smoking should be prohibited in rooms where anesthetics are either administered or present.

The use of incandescent or high frequency cauteries or coagulators within a distance of 2 feet from the mouth of a patient receiving flammable anesthetics should be prohibited unless a rubber sheet and wet drapes are properly applied.

On rare occasions, explosions of ether (from peroxides) have occurred due to the effect of sunlight. Ether should always be stored in original cans or dark glass bottles. Unless amber glass jars are supplied by the manufacturers, any ether remaining in the anesthesia machine should be removed and properly stored in the original container at the end of the day's work.

Electrical equipment should be inspected frequently to detect faulty operation, broken switches and plugs, frayed cords, and open sparks. Unless the equipment is explosion proof, it should not be used where concentration of flammable anesthetic gases may be present.

Roentgen-ray and fluoroscopic equipment can cause fire or explosion when flammable anesthetic agents are being used. Roentgen-ray apparatus is often brought into the operating room during the admin-

TABLE 1.—*Limits of Flammability of Anesthetics.*

Anesthetic Agents	Density of Air Taken as 1	Limits of Flammability: In Air		In Oxygen		In Nitrous Oxide	
		Lower	Upper	Lower	Upper	Lower	Upper
Ethylene	0.97	3.05	28.6	2.90	79.9	1.90	40.2
Propylene	1.45	2.00*	11.1	2.10	52.8	1.45	28.8
Cyclopropane	1.45	2.40	10.3	2.48	60.0	1.60	30.3
Ethyl chloride	2.23	4.00	14.8	4.05	67.2	2.10	32.8
Ether-divinyl	2.42	1.70*	27.0*	1.85	85.5	1.40	24.8
Ether-diethyl	2.56	1.85*	36.5*	2.10	82.0	1.50	24.2
Nitrous oxide	1.52	Not flammable		Not flammable		Not flammable	
Chloroform	4.12	Not flammable		Not flammable		Not flammable	

*Tests made in 8 liter, cylindrical, closed steel bomb.

After Jones, G. W.; Kennedy, R. E.; and Thomas, G. J.: Technical Paper 653, United States Bureau of Mines, 1943.

istration of an anesthetic agent. Modern shockproof equipment decreases the hazard of fire and explosion but does not eliminate it entirely.

STATIC ELECTRICITY

Static electricity, which is electricity at rest, is the cause of a high percentage of explosions in hospitals. It is usually produced on nonconductors but can be transferred and retained on insulated conductors.

Friction between dissimilar, nonconductive materials produces static charges. Some examples of this are the shuffling of feet across a rug on a dry day, running a comb through the hair, rubbing a glass rod with silk or synthetic fabric, and separation of woolen garments, upholstered furniture, and so forth. Static charges can also accumulate by inductive processes on articles that are near electrically charged objects.

Most materials permit electricity to pass through them, but some materials are such poor conductors that they are considered insulators. Metals and carbon are good conductors, whereas acids, salt solutions, plants, and animals are relatively poor conductors. Various oils, dry wood, silk, rubber, plastics, glass, and air are considered insulators.

Development of electrostatic charges in the average operating room is impossible to prevent. There is so much activity that frequently frictional contact occurs with one or another of the many nonconductive materials that are present in the room, and charges are thus generated.

The only means of preventing the accumulation of static charges thus produced is to provide paths by which the electrostatic charges may flow away as fast as they are generated. This can be done through the use of conductive floors and efficient conductive contact thereto. All movable conductive objects and personnel present in a room where flammable anesthetic agents are administered should have proper electrical contact with the floors.

CONDUCTIVE FLOORS

The floor is usually the most convenient common path for electrical charges to follow. Floors made of rubber, linoleum, tile, or marble are very poor electrical conductors. Neutralization of charges through such floors requires considerable time. A dangerous spark may occur before the neutralization is complete.

A terrazzo floor with conductive metal grilles may or may not be sufficiently conductive. Several other types of satisfactory conductive floors are on the market, and new ones are appearing from time to time. In planning the installation of conductive floors, consideration must be given not only to conductivity but to cost, durability, and appearance.

GROUNDING

Grounding chains are useful for removing static electricity from operating room equipment only if the following conditions are observed:

1. The floors must be definitely conductive or have metal dividing strips closely spaced.
2. The chains should make long-line contact with the floor if the floor is conductive, or with at least two metal strips if it is not. Chains so short that only one or a few links are in contact with the floor cannot be relied upon to remove static. Long chains on tables, stools, carriages, gas machines, and so forth will not be in the way if they are placed diagonally underneath the equipment. To insure greatest benefit, two diagonal chains could be used on each piece of equipment.
3. Chains should be cleaned occasionally to remove dirt, wax, grease, soap, oxide films, or other foreign substances which may accumulate between the links and cause high resistance. A stiff brush and a greaseless detergent should be used for this purpose.
4. Chains having open links are preferable to those of the ball or beaded type, which have conductive parts that are inaccessible for cleaning. They should be of material which will not rust or give off abrasive sparks when dragged over concrete or other hard surfaces.

If the floor has high resistance, the problem of grounding is solved satisfactorily by the use of one moistened and two wet towels or any other sizable pieces of fabric. The moistened towel is folded lengthwise; one end is placed under the patient's shoulder against the bare skin, and the other end is tucked between the mattress and the top of the op-

Fig. 1. A method of using wet towels for removal of static electricity during anesthesia.

erating table. One wet towel is laid above the caster from the base of the table to the floor toward the anesthetist's foot. The anesthetist's foot and the stool touch one or both of the towels. The other wet towel is stretched from the foot of the gas machine to the floor. Moistened and wet towels employed in such a manner provide excellent interconnection and grounding even though a standard test may indicate high electric resistance (fig. 1).

The explanation for this recommendation is as follows. Conduction of electricity to ground through a floor is accomplished through many paths of high resistance. When a contact to the floor is made with a chair, plate, or chain, only a few of the available paths to ground are used. When contact is made through a large wet towel, cloth, or pool of water placed on the floor, thousands of such paths are made available and the neutralization of charges is easily accomplished.[2]

HUMIDITY

Many anesthetists believe that an atmosphere of high humidity prevents the accumulation of static electricity and thereby eliminates explosions caused by electrostatic charges. However, several explosions have been reported with the relative humidity at 65 per cent. In April, 1949, an explosion attributed to a static spark occurred when the relative humidity was 76 per cent. While high humidity is not sufficiently reliable for complete control of electrostatic generation, a relative humidity of 55 per cent (plus or minus 5 per cent) will reduce the hazards of electrostatic discharges; this should be maintained the year round.

Air conditioned operating rooms are certainly desirable, but some authorities are of the opinion that artificially conditioned operating rooms are more dangerous than nonconditioned rooms, because of the removal of carbon dioxide from the air. These authorities believe that it is the carbon dioxide in the humid atmosphere which is effective in giving conductivity to insulators.

Whereas this seems plausible, it is not altogether true, because most chargeable surfaces and insulators in operating rooms are contaminated with dust, soap films, and so on, which probably furnish more ions in solution than would be furnished by the carbon dioxide. Unless the relative humidity is high, it may not prevent the possible electrification of rubber parts, woolen blankets, and synthetic fabrics. Furthermore, unless the equipment is in constant operation and in permanently good condition, it may fail to provide protection when it is most needed.

ELECTRICAL AND ANESTHETIC EQUIPMENT

Receptacles and plugs which cannot be pulled apart accidentally should be installed where needed. They should not be placed in or near the floor where heavy anesthetic gases are apt to pass over them, and they should be well out of the range of combustible gas mixtures. This precaution also applies to heaters, open motors, and switches.

In new building construction, the electric wiring should conform with the latest approved regulations of the National Fire Protection Association and the National Electrical Code.

Each gas machine should be equipped with conductive rubber breathing tubes, mask, and bag. Many of the conductive rubber breathing tubes today have connectors at each end made of plastic or some other nonconductive material. All connectors should be metal or of some other conductive material, or the purpose for which they were made is defeated.

High resistance rubber casters are still present on most gas machines today. Heavy bronze or brass window-sash grounding chains should be installed on all anesthetic equipment and operating tables, provided the floors are definitely conductive or have closely spaced metal dividing strips.

It is always dangerous to move anesthetic appliances, and extreme caution should be exercised, especially when they are moved across nonconductive floors. Altering the connection or changing connections during the course of anesthesia is hazardous and should be done only with extreme care. The safest procedure is to move the patient with the gas machine completely disconnected.

OPERATING ROOM EQUIPMENT

Mattresses, pads, and pillows should be covered with conductive rubber sheeting. All stretcher carriers should be equipped with the same, especially in buildings where nonconductive floors are still in use.

Operating tables, anesthesia stands, stools, and instrument tables should be equipped with a conductive material at the points where they make contact with the floor. Stools should be either left bare or covered with conductive materials.

Endoscopic instruments which operate on 6 or 8 volts and not more than 0.5 ampere do not constitute a hazard.

Wool blankets, plastic sheets, and most of the usual synthetic fabric materials should not be used in the operating room. Cotton blankets are satisfactory, but, if they are kept in warming compartments, some means should be provided to keep them from losing moisture.

CLOTHING

Cotton uniforms are desirable from an electrical standpoint since they retain a satisfactory conductivity at fairly low humidities and because they do not produce or acquire charge by frictional contact with other much used cotton articles, such as sheets, bandages, and sterilized bundles.

Conductive shoes should be worn by all hospital personnel. Personnel wearing ordinary rubber or synthetic soled shoes may be static carriers regardless of the type of floors in use. Soles of leather or other absorbent material can be brought to the desirable value of 1 megohm or less in a few minutes by standing on a wet pad soaked with 5 per cent calcium chloride solution.

RECOMMENDATIONS FOR ANESTHETIZING LOCATIONS IN HOSPITALS

The following recommendations have been made for safety in anesthetizing locations in hospitals:

1. "No Smoking" signs should be posted in all corridors in the operating, delivery, and emergency room suites, and areas where inhalation therapy is in use.

2. Controlled temperature and humidity the year round is desirable in *all* anesthetizing locations. The temperature should range from 72 to 78 F., and the relative humidity should be maintained at 50 to 60 per cent. A recording instrument should be placed in one or two strategic points in the surgical suite to show and record the hourly temperature and humidity.

3. Adequate ventilation in anesthetizing locations is also very helpful in minimizing fires and explosions with flammable anesthetic agents. It is recommended that 8 to 12 air changes per hour should be established in these locations.

4. A good conductive floor is essential; selection of a dependable floor should be made only after a reliable consultation has been held.

5. A grounding device should be installed on all movable equipment in the anesthetizing area.

6. Conductive casters on the equipment should be kept free of powder, lint, and other objects that have a tendency to raise the electric resistance of the wheels and defeat their purpose.

7. Anesthesia machine parts such as breathing tubes, bags, and masks, should be of good quality conductive rubber. It is advisable to replace rather than repair these parts because holes or cracks covered with adhesive tape or other means continue to permit leaks of anesthetic agents.

8. The anesthetist's stool should have a conductive seating surface such as stainless steel. Ordinary painted surfaces are usually insulating and should be eliminated. Caution is advised in the use of adhesive tape to prevent slippage, so that not more than 50 per cent of the contacting area is covered with the tape, which is insulating. Conductive pads, to be used only on unpainted stool tops, are suggested. These stools should be grounded to the floor by means of conductive leg tips or heavy brass or bronze sash chains, or by removal of nonconductive leg tips so that bare metal is in contact with the floor.

9. Since paint and enamel are insulators and difficult to ground, all equipment used in the anesthetizing locations should be of stainless steel, chrome plated, or aluminum material.

10. No one should be permitted in the anesthetizing locations unless wearing cotton uniforms.

11. Woolen blankets, plastic sheeting, and synthetic fabrics, generally should be excluded from anesthetizing areas. This includes silk, nylon, and sharkskin uniforms.

12. All persons entering the surgical suite should be required to measure the electric resistance of their footwear on the conductometer provided for this purpose at the entrance into the corridor.

13. All personnel and visitors in the anesthetizing locations should wear conductive footwear, or the equivalent, and cotton uniforms. Crepe soled shoes, wool, silk, nylon, sharkskin, or other similar synthetic fabrics should not be permitted in such areas. Note: nylon hosiery and undergarments may be permitted providing the outer garment is cotton and the footwear is conductive.

14. Mattresses on delivery, emergency, and surgical tables and carriages should be covered with conductive rubberized sheeting.

15. It is my opinion that illuminating instruments and cautery equipment operating on less than 0.5 ampere and less than 9 volts are safe to use in anesthetizing locations. However, it is believed by some authorities that any electric arcing, even with voltage as low as 8, either by a switch or defective connections anywhere in the circuit, may produce a spark of sufficient energy to ignite combustible anesthetic agents. Therefore, it is important that all electrical equipment, regardless of amperage or voltage, should be properly maintained; it should be connected and power turned on before approaching the patient.

16. All electrical cords and fixtures in the anesthetizing locations should comply with the National Electrical Code for Class I, Division 1, and Group C areas.

17. Flammable germicides should not be used for the preoperative preparation of the field.

18. Anesthesia equipment should not be draped; paper and other wrappings should be removed from gas cylinders and the label should be legible.

19. Wangensteen electrical drainage equipment can be used in anesthetizing areas. However, this electrical device should be kept *at least* 5 feet away from the anesthesia apparatus.

20. Since anesthetic vapors are heavier than air and have a tendency to flow toward the floor, an explosion-proof foot pedal switch should be used with the Bovie and other electrical units operated in such manner. These are available today and should replace the older nonexplosion-proof type.

21. Cyclopropane, ethylene, and the various ethers can be stored together but *should be kept separated* from oxygen and nitrous oxide.

22. Conversely, oxygen and nitrous oxide can be stored together but not with the just mentioned gases or liquids.

23. There should be three or four no. 5 carbon dioxide extinguishers located in strategic areas in the surgical and obstetrical suites. The carbon dioxide will smother an anesthetic fire whereas the soda-acid and water will spread it.

24. The following rules should be emphasized to the personnel:

a. Do not permit oil, grease, or flammable material to come in contact with oxygen cylinders, valves, regulators, fittings, or gages.

b. Do not lubricate regulators, fittings, or gages with oil or any other such combustible substances.

c. Oxygen cylinders or apparatus should not be handled by anyone having oily hands or using greasy gloves or rags.

d. High pressure valves on the cylinders of all gases on anesthetic machines should be opened before approaching the patient with the apparatus.

e. Oxygen cylinders should never be draped with any material such as hospital gowns, masks, or caps.

f. Always clear the particles of dust and dirt from the outlet of each cylinder by slightly opening and closing the valve before applying any fittings to the cylinder.

g. Do not permit oxygen to enter the regulator suddenly; open the cylinder valve *slowly*. When opening the valve, point the face of the regulator gage away from the operator and other personnel.

h. Do not use oxygen fittings, valves, regulators, or gages for any service except oxygen.

i. Gases should never be mixed in or added to any oxygen cylinder or any other cylinder by hospital personnel.

j. Do not attempt to use regulators that are in need of repair or cylinders having valves that do not operate properly.

k. Do not attempt to repair defective oxygen equipment unless you are properly trained and qualified for such work.

l. Cylinder valves should be fully opened when in use.

m. Cylinder valves should be kept closed at all times except when gas is actually being used.

25. A suitable electrical instrument should be purchased for the maintenance engineering department to check periodically the resistance of floors, and all movable equipment in the anesthetizing locations. Instruments for measuring electrical resistance of floors, personnel, and equipment in the anesthetizing locations may be obtained from numerous manufacturers.

26. Measurement of the floor resistance and the grounding devices, as well as electrical equipment in the anesthetizing locations, should be made and recorded every month by the maintenance electrical engineering department and presented to the hospital administrator for a review and countersigning the inspection. The inspection could be made during the week end and without additional cost to the hospital. It is a very essential item, and it can be helpful in the event of litigation.

27. A personnel or shoe testing meter should be installed in the corridor at the entrance to the anesthetizing location to measure the resistance of footwear.

28. Copies of Bulletin 56 of the National Fire Protection Association on "Safe Practice for Hospital Operating Rooms" may be obtained for 25 cents per copy from the Association, 60 Batterymarch Street, Boston 10.

29. When the ground contact signal (red light) lights, the administration of combustible anesthetic agents shall be discontinued at the earliest possible moment. Following completion of the operation, the operating room in which the signal functioned shall not be used until the reported electrical defect is remedied.

30. No equipment should be used in anesthetizing locations unless it has been inspected, studied, and sanctioned by the director of the Department of Anesthesiology, who is well versed on this subject.

31. Piped oxygen, air, and suction is economical and very useful in the anesthetizing areas.

32. Recovery rooms should have piped oxygen and suction for all patients in this area.

33. It shall be the responsibility of the anesthetists (or the person appointed by the hospital authority to act in that capacity) to enforce the previously mentioned regulations.

34. Employ block anesthesia or spinal analgesia or produce anesthesia with nonvolatile agents when these are suitable.

35. Use the carbon dioxide absorption technique in the administration of inhalation agents. The anesthetist should carefully observe the following routine: (a) Touch the patient and the gas machine before releasing vapors or gases. (b) Bring the mask into contact with the patient's face after the mask is connected with the apparatus. (c) Allow only a nonflammable mixture to flow through the machine until all contacts are made. A low oxygen concentration might be used for the first half minute of the induction period. (d) Use deliberation in all movements. Break and remake connections of the face mask with the patient and the anesthesia apparatus only when each part is in your own hands.

Finally, always be on the alert against that silent, unseen hazard which is least understood and most neglected—static or frictional electricity. A spark that scarcely can be seen or felt can prove disastrous.

SIMPLE AND RELIABLE TEST

Nonflammable anesthetics should be employed when an electrocoagulating or fulgurating apparatus is used in connection with eye, ear, nose, or throat surgery. However, in the event that a patient, already anesthetized with a flammable mixture, requires electrocauterization in the vicinity of the neck or face, the following procedures[3] are recommended:

Fig. 2. A method of drawing a sample of exhaled gas and air. [After Thomas, G. J.: Do You Know, American Society of Anesthesiologists NewsLetter 16:14-15 (Nov.) 1952.]

1. Discontinue administration of the anesthetic and move the equipment to a place at least 5 feet away from the patient.

Fig. 3. Plunger removed and mouth of syringe barrel applied to alcohol lamp flame. [After Thomas, G. J.: Do You Know, American Society of Anesthesiologists NewsLetter 16:14-15 (Nov.) 1952.]

2. Allow the patient to breathe room air for *not less than 3 minutes.*

3. Insert a 10 cc. syringe halfway into the oral cavity, and take a sample of the exhaled gas from the patient (fig. 2).

4. Without moving the plunger, carry the syringe containing the sample of exhaled gas to a nearby room where an alcohol lamp may be safely lighted.

5. After the lamp has been lighted by an assistant, remove the plunger of the syringe and bring the mouth of the barrel into contact with the flame (fig. 3). If any flammable gas is present in the barrel, it will be ignited and a puff of flame will be seen. Electrocauterization should not be attempted until a sample of the exhaled gas gives a negative test.

CONCLUSIONS

Manufacturers, architects, and builders concerned with hospital construction should be thoroughly familiar with the hazards common to anesthetizing areas and should supply materials and construction which conform with modern safety code requirements.

Hospital management should be grateful for the intense interest being shown at present in safety and should regard it as a duty of the surgeons, anesthesiologists, nurses, and other operating and delivery room personnel to be thoroughly instructed in all of the causes of anesthetic fires and explosions. This duty should be impressed upon each member constantly, and a method should be devised to insure complete adherence to all recommended precautions.

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CORRECTION: ANDERSON SECRETARY-DESIGNATE

Robert B. Anderson, guest speaker at the concluding General Meeting Luncheon at the Texas Medical Association annual session in Dallas, May 1, 1957, and author of "The Art of Introspection," his address published in the June issue of the *Journal* (pages 387-389), should have been identified at the time of publication as Secretary-Designate of the Treasury and formerly president of Ventures, Limited.

Fractures Which May Be Safely Handled In the Office Of the General Practitioner

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THE PHYSICIAN in general practice is often the first to be consulted by patients with acute injuries. It is highly important, therefore, that this physician be able to select the problems which he may safely and adequately manage through his office practice and with the patients remaining at home. At the same time it is just as important that he be cognizant of those fractures and more serious injuries

Dr. H. R. McCarroll, assistant professor of clinical orthopedic surgery, Washington University School of Medicine, presented this paper as a refresher course April 30, 1957, during the Texas Medical Association annual session in Dallas.

Since the general practitioner often is first to see the patient with acute injuries, it is important that he know which problems he may safely treat in his office or at the patient's home and which more serious injuries, such as compound fractures, need specialized care. In many fractures, conservative therapy gives excellent results. Simple rules for treatment are presented.

for which the patient should be hospitalized or should be referred to a surgeon adequately trained in this field. The scarcity of hospital beds in recent years has made it imperative that many problems in all phases of medicine and surgery be managed in the office and at home wherever possible. In many fractures a very conservative program of therapy will afford an excellent result. If these conservative measures fail, however, the physician in general practice

should advise or accept consultation in order that more radical therapeutic measures may be instituted if they are then deemed advisable. If the physician in general practice will follow these simple rules, he may safely and adequately treat many fractures and dislocations with complete assurance of justice to all.

THE CLAVICLE

The fracture of the clavicle represents a type of injury which seldom requires surgical intervention and which, in the majority of instances, may be safely managed by the general physician. In children and in the majority of adults the only treatment indicated is the use of a figure-of-8 type of bandage support which is placed about the two shoulders and anchored firmly in order to hold the shoulders in extension and moderate elevation. Such a figure-of-8 bandage may be easily constructed with a strip of stockinette placed over a strip of absorbent cotton, sheet cotton, or felt padding. After it is placed in position about the two shoulders, it is pulled snugly and anchored with two safety pins. It then may be reinforced with adhesive strips in order to avoid stretching with continued use of the shoulders and extremities. This figure-of-8 bandage may be reinforced with plaster of paris, but this is more rigid, more uncomfortable, and not essential. When reinforced with plaster of paris, the bandage becomes more irritating to the skin and carries some added risk of pressure on major vessels and nerves about the shoulder girdle. The figure-of-8 bandage should be changed at weekly intervals in order to avoid irritation of the skin in the axillae. If there is a tendency for the outer fragment of the clavicle to drop with the shoulder, this may be controlled by the addition of a sling which is tightened sufficiently to elevate the shoulder to the proper level.

In children a fracture of the clavicle heals in approximately four weeks, and it is usually safe to discontinue the support after this period of time. Roentgenograms, of course, should be made during the course of the treatment, and the figure-of-8 support should be continued until satisfactory bony union has occurred. In adults bony union does not take place as rapidly, and the figure-of-8 support may have to be continued for six or eight weeks.

The only instance in which surgical intervention is indicated in a fracture of the clavicle is the occasional case in which extreme displacement of the fragments in the adult patient makes it impossible for bony contact and bony union to occur, or in the case in which a pointed or comminuted fragment has penetrated beneath the skin to the extent that a secondary compound wound could easily occur.

THE SHOULDER AND HUMERUS

Certain fractures about the shoulder may be safely managed by the physician in general practice. Fractures of the tuberosity and fractures of the surgical or anatomic neck of the humerus with no displacement or very minimal displacement fall into this group. Fractures of this type frequently require no more support or immobilization than the addition of a sling to the extremity. If the pain is so severe that immobilization of this type is not sufficient, a Velpeau bandage may be used until the acute pain has subsided. The Velpeau bandage should be removed as soon as the pain has subsided sufficiently and a sling substituted. Exercises for the shoulder should be instituted early in a fracture of this type, and active use of this extremity should be encouraged as soon as roentgenograms show satisfactory union of the fracture. This may require four, six, or eight weeks depending on the type of fracture encountered. Those fractures about the head and neck of the humerus which are badly displaced usually should be referred to an orthopedist for manipulative reduction or open reduction as the individual case may indicate.

In older people with generalized bone atrophy, fractures of the head of the humerus are frequently encountered. These fractures are often severely comminuted and badly displaced, and manipulative reduction or open reduction offers little hope of improvement. The exact age group in which such fractures should be treated conservatively is difficult to state. They usually occur in persons past 60 years of age and, in the presence of severe comminution and displacement of fragments, conservative therapy is usually advisable. A fracture of this type, therefore, may be safely managed by the physician in general practice in his own office. The pain in such fractures is quite severe in the beginning, and the shoulder usually should be immobilized until the acute pain has subsided. A Velpeau bandage or the use of a sling and swathe about the arm and chest will protect the extremity and offer a great deal of comfort. This type of support should be continued for three or four weeks depending on the type of fracture and the amount of pain which is present. After that period a sling should be substituted and active exercises of the extremity should be encouraged. Pendulum exercises represent the best form of initial active movement, and the patient then should be encouraged to begin active use of the extremity for light work as rapidly as possible. In fractures of this type satisfactory results usually can be obtained although a considerable amount of disability and limitation of motion always follow. The patient will show excellent use of the extremity as long as the arm is kept at the side, but elevation of the extremity and its attempted use in an elevated position

remain markedly impaired. Often, however, active abduction of 90 degrees can be obtained even though the extremity may not be elevated above this level.

Traumatic dislocations of the shoulder also may be managed in the office of the general practitioner without the need for hospitalization. Many of these shoulders can be reduced without the aid of a general anesthetic. The patient can be given morphine or Demerol and placed in a prone position on the examining table with the involved shoulder lying flush with the margin of the table and with the arm of the involved extremity hanging at the side of the table in a dependent position. After the preliminary medication has had time to take effect, mild traction and manipulation of the shoulder with rotation of the arm often will reduce the dislocation. If this fails, the patient should be placed on the back and the Kocher maneuver carried out. The involved extremity is first placed in a position of abduction and external rotation, which can be obtained slowly without great pain. While the position of external rotation is maintained, the arm is then dropped to the side so that the humerus parallels the long axis of the body. The third step in the maneuver consists of simply internally rotating the extremity so that the forearm is swung across the trunk. In the majority of instances the dislocation is reduced before the second step of the procedure has been completed. Occasionally, however, the dislocation may be more difficult to reduce and a general anesthetic for complete muscle relaxation may be required. In those instances where reduction of the dislocation is difficult, the Kocher maneuver should be repeated with the closed fist of an assistant held deep in the axilla of the patient as the maneuver is carried out. This often will make it possible to swing the head of the humerus into the glenoid fossa without great difficulty.

Immobilization of the dislocated shoulder should be continued for a period of at least three weeks, and this is particularly true if the patient has suffered the first dislocation. Immobilization over this period of time in which the soft tissue injuries are permitted to heal affords the best protection against possible future recurrent dislocations. (An exception to this may exist in patients 65 years of age and over in whom the use of a sling and early active exercise of the shoulder may be advisable.) This immobilization can be obtained best by means of the ordinary Velpeau bandage, which immobilizes the involved extremity to the thoracic cage. This Velpeau bandage should extend across the opposite shoulder as well as the involved shoulder in order to prevent its slipping out of position. If the dislocation of the shoulder continues to recur, surgical reconstruction should be considered, and for this the services of the orthopedic surgeon should be obtained.

Spiral fractures of the shaft of the humerus and certain transverse or mildly comminuted fractures of the shaft of the humerus also may be treated by conservative measures in office practice. If there is no marked displacement of the fragments and no evidence of associated radial nerve injury, the simple application of a hanging cast usually will afford a satisfactory result. The hanging cast is applied as a long arm plaster cast with the elbow flexed to 90 degrees. The cast is suspended from the neck by means of a loop about the wrist. This permits the arm to hang at the side in a perpendicular fashion, and the weight of the cast serves as traction on the fracture. The portion of the cast which incorporates the upper arm should be extended as high as possible into the axilla in order to add additional support to the fracture and maintain satisfactory alignment. This cast should be worn until roentgenograms reveal a satisfactory amount of surrounding bone formation, and not until then should an attempt be made to remove it and substitute a sling. If movement of the arm in the hanging cast produces considerable pain and the patient remains apprehensive, a swathe about the arm and chest will add additional support to the fracture. When this is used, a thin cotton pad should be placed between the upper portion of the cast and the thorax. A cast of this type may have to be continued in adults for a period of 8 to 12 weeks before the adjacent callus is sufficiently heavy to permit removal of the plaster cast. Some atrophy of the muscles and soft tissues as a result of the immobilization may necessitate change of this plaster during this interval. If the cast becomes too loose, it should be changed in order to keep it as snug as possible. A word of warning should be given. A plaster cast of this type should be made as light as possible. A heavy cast used as a hanging cast will often stretch the soft tissue structures about the shoulder to such an extent that some subluxation of the head of the humerus may occur. This should be watched closely and if this tendency is observed, a sling or even a light Velpeau support may be added over the plaster cast.

THE ELBOW AND FOREARM

Certain injuries about the elbow may be managed safely by the physician in general office practice. Undisplaced fractures of the medial or lateral epicondyle, of the coronoid process, and of the olecranon process fall into this group. Fractures of this type usually should be immobilized in a plaster of paris cast with the elbow flexed to approximately 90 degrees for a period of three or four weeks. The institution of active exercise and active use of the extremity prior to this time carries with it some risk of displacing the fracture fragments. In fractures of this type in which displacement has occurred, open reduc-

tion and internal fixation are usually indicated, and the patient in such instances should be referred to an orthopedist.

Traumatic dislocations of the elbow may be treated by the physician in his office and often without the aid of a general anesthetic. As in traumatic dislocations of the shoulder, the patient should be given preliminary morphine or Demerol, and the patient should be permitted to relax until this has taken full effect. With the patient prone on the examining table, the involved extremity may hang in a dependent position at the side of the table and traction of 6 or 8 pounds may be added by simply having the patient hold a weight of this size in the hand. Occasionally, spontaneous reduction of the elbow will occur with this management. If this fails, additional mild traction and manipulation of the elbow may be safely added. If this fails, however, the patient should be given a general anesthetic in order to obtain complete relaxation of the soft tissue structures about the elbow to avoid the necessity of great force in reducing the dislocation. Once the dislocation has been reduced, a long arm plaster cast should be applied with the elbow flexed to 90 degrees. This plaster should be continued for three weeks. After its application roentgenograms should always be repeated in order to establish the fact that anatomic reduction of the elbow has occurred without injury to the adjacent bone structures. Once the plaster cast has been removed, active exercise and active use of the extremity should be instituted as rapidly as possible. Maintaining immobilization for this period of time seems to decrease the possibility of progressive calcification and ossification in the damaged soft tissue structures and in the hematoma about the elbow joint.

A simple fracture of the head of the radius or a fracture of the neck of the radius in which there is no marked comminution and no marked displacement of the fragment may be managed conservatively in the office of the general practitioner. If the comminution or displacement of the proximal portion of the radius is not sufficient to justify open reduction, it is not necessary to immobilize the extremity in these injuries. A sling may be used for several days or until the acute pain has subsided. The use of an elastic bandage during the first few days may also give some additional comfort. Early active use of these extremities avoids scar fixation about the proximal radio-ulnar joint and usually will result in improved function.

In fractures of this type with little or no displacement active use of the extremity carries with it very little risk of further displacement of the fragments, and for that reason early active use and active exercise of the extremity are safe. If the radial head is badly displaced or badly comminuted, open reduction and excision of the involved fragments should be considered in the adult. In a child, accurate replacement of a displaced radial head may be possible and should be attempted. This is done in order to diminish the possibility of difficulty resulting from growth disturbance by loss of the proximal radial epiphysis. Surgery of this type obviously requires hospitalization and specialized care.

Simple fractures of one or both bones of the forearm may be managed by the general practitioner in his office if no marked displacement has occurred. If marked angulation of the fragments or marked displacement and overriding exist, office management of the fracture should not be attempted. In children some degree of displacement may be acceptable and a simple conservative program of therapy followed. Immobilization by means of a long arm plaster cast is advisable, and the use of a simple removable splint should not be trusted since displacement of the fragments may occur. When a long arm plaster cast is used, the patient should be examined at intervals of 24 hours during the first three or four days, since extreme swelling may follow. The plaster cast should be continued for a total of eight weeks or longer if roentgenograms at the end of that time fail to reveal satisfactory healing of the fracture.

The possibility of secondary circulatory disturbances should be kept constantly in mind in the management of any fracture about the forearm and elbow, especially in children. Extremities have been lost after satisfactory reduction of fractures in these areas when the physician has failed to follow the patient closely and observe the secondary circulatory changes which have occurred. In the event of circulatory disturbance as manifested by intense swelling and cyanosis or in the event of intense pain which makes it impossible for the patient to sleep, the plaster cast should be split.

The Colles' fracture represents another type of injury which may be handled at times in the office of the general practitioner, keeping in mind the prerequisites outlined previously. The Colles' fracture is not a simple injury, and accurate reduction is at times difficult to obtain and maintain. In those instances when an orthopedist is not readily available, the physician in general practice may safely undertake treatment with the aid of local anesthesia. After questioning the patient as to sensitivity to procaine, 5 cc. of 1 per cent procaine is injected into the hematoma about the fracture site. It is usually best to insert the needle into the area of fracture over the dorsal or lateral aspect of the fracture site, and blood from the hematoma should be evacuated before the procaine is injected.

After allowing a few minutes for the procaine to take full effect, the fracture is then reduced by placing traction on the hand and pressure on the dorsal surface of the distal radial fragment with the thumb

over this point. After reduction of the fracture, immobilization should be carried out by means of a long arm plaster cast extending from the fingertips to the midportion of the arm with the elbow flexed to 90 degrees. The wrist should be immobilized in a position of flexion and ulnar deviation in an attempt to lock accurately the distal fragment of the radius in position.

The plaster cast is extended initially to the tips of the fingers and thumb in order to control the swelling in these parts. The cast is then trimmed to a point just proximal to the metacarpophalangeal joints at the end of about 72 hours in order to permit active exercise and active use of the digits during the remainder of the period of immobilization. The long arm plaster cast is usually continued for four weeks, at the end of which time a short arm plaster cast may be substituted. The position of flexion and ulnar deviation may be safely corrected at this time. This is in turn continued for two weeks so that the total period of immobilization involves approximately six weeks in any Colles' fracture. It is also advisable during this period to repeat the roentgen-ray study once or twice. If the position of the fragments has been lost, consultation with an orthopedist should be obtained.

THE HAND AND FOOT

Fractures of the metacarpals and fractures of the fingers and thumb in the majority of instances can be adequately managed in the office of the general practitioner. Fractures of the metacarpals are often oblique or spiral in type, and the transverse fractures often remain in satisfactory alignment. In such instances the use of a short arm plaster cast extending from the metacarpophalangeal joints proximally to the junction of the upper and middle thirds of the forearm should be applied and continued for four weeks. Transverse fractures of the neck of the metacarpal, in which there may be some depression of the corresponding metacarpal head, may be safely managed in this manner by simply forcing the depressed metacarpal head into satisfactory position during the time the plaster cast is setting. Such fractures more frequently involve the fifth metacarpal head than any other, and the plaster should be extended distally to incorporate most of the proximal phalanx of the involved digit.

Most fractures of the phalanges can be managed safely by the physician in general practice. Even if some angulation or displacement has occurred, manipulation and realignment of the phalanx is usually not too difficult. The most important point in the management of any fracture of the finger or thumb is to remember that it should be immobilized in a position of function. This necessitates fixation in a position of moderate flexion. If a finger is immobilized in complete extension as in the use of an ordinary tongue-blade splint, the finger is in a strained position and a series of angulations occurs at the various joint structures. Flexion of this finger to about 30 degrees represents a position of comfort and anatomic alignment. This position of immobilization may be maintained by means of a plaster of paris cast or it may be maintained by the application of any removable metal splint to the finger involved. Ordinary strips of ½ inch Duralumin may be easily obtained and kept in the office of the physician and cut to the desired length. This splint may be molded to the degree of flexion desired, adequately padded adjacent to the flexor surface of the finger, and held in position by means of narrow strips of adhesive tape. In most fractures it is usually advisable to superimpose a bandage type dressing in order to prevent removal of the splint and possible loss of position. The splint should be continued for three or four weeks in the majority of instances, but the exact length of time must be determined by the appearance of the individual fracture and the evidence of bony union as seen in the films.

Fractures of the lower extremity which may be managed by the physician in his general office practice are usually limited to the leg and foot. Simple fractures of the fibula and some fractures of the tibia remain undisplaced and nothing is indicated in treatment except the application of a plaster cast. In some instances this cast may extend only to the knee, but in the case of fractures of the tibia extension of the cast to the mid-thigh for immobilization of the knee is usually desirable in order to avoid the possibility of subsequent displacement. In any fracture of this type the plaster cast should be continued until roentgenograms have shown adequate bony union. This usually requires a minimum of six to eight weeks.

Undisplaced fractures of the malleoli may be managed by the simple application of a short leg plaster cast for a period of approximately six weeks. A word of caution, however, should be given in evaluating a fracture of this type. If there is any evidence of separation at the site of the fracture of the medial malleolus, it is possible that soft tissue has been interposed. In this type of problem, open reduction, removal of the interposed soft tissue, accurate approximation of the fracture fragments, and internal fixation are usually required. If a fracture of the medial malleolus does not remain in anatomic alignment, consultation with an orthopedic surgeon should be obtained immediately. If an open reduction is to be carried out in a fracture of this type, it should be done as early as possible before fibrosis of the interposed soft tissue and organization of the adjacent hematoma have occurred.

Simple fractures of the foot such as fractures of the metatarsals and fractures of the phalanges often require no plaster fixation. Unless multiple fractures have occurred or unless there is marked displacement of the fragments, a leather sole shoe usually will serve as adequate splinting and immobilization. In adults, a fracture of this type may be followed by extreme disuse bone atrophy, known as Sudeck's atrophy, if plaster immobilization is continued for several weeks. It is also possible in some instances to control the initial pain by the use of crutches for a few days without the necessity of plaster immobilization. If a plaster cast is applied, a walking heel should be added so that early weight bearing may be instituted. This frequently will help to prevent the disuse bone atrophy which may otherwise follow complete immobilization and loss of function over a period of a few weeks.

THE SPINE

A mild compression fracture of the spine may be managed by the physician through his office or with the patient at home without the necessity of prolonged hospitalization. Frequently encountered are mild compression fractures which usually involve the superior articular surface of one vertebra. Experience has shown that in the majority of instances attempted reduction of this fracture and fixation by means of a body cast will not bring about a great deal of permanent improvement. In most instances the original position of this fracture will again be assumed after the plaster has been removed. It is, therefore, unnecessary to hyperextend and completely immobilize a mild compression fracture of the spine. The patient may be simply kept in bed at home for 10 days to three weeks or until the acute pain has subsided. After this period the patient may be gotten up in an ordinary low back corset, lumbosacral support, or a Taylor back brace. A Taylor back brace is advisable if the fracture involves the thoracic portion of the spine, but the low back support will be adequate for any involvement in the lumbar area. The support should be continued for approximately three months at which time it usually can be discontinued if roentgenograms show satisfactory healing of the fracture. Simple fractures of the pelvis with little or no displacement of the fragments also can be managed in this way, and hospital beds can be reserved for those patients with more serious problems.

SUMMARY

An attempt has been made to discuss many of the simpler fractures and dislocations which can be adequately and safely managed in the office of the general practitioner. The plan of recommended treatment for each type of injury has been presented briefly. The general practitioner in the office management of these injuries should recognize his limitations. He should not attempt the treatment or management of compound fractures. He should not attempt the treatment of those fractures which involve neighboring joint structures or have associated soft tissue injuries which may be considered serious in type. The general practitioner should not attempt the management of that fracture which is badly displaced and in which open reduction and internal fixation can and will afford a more satisfactory result. In instances of this type the physician in general practice should request consultation with an orthopedic surgeon.

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Simple Method of Elevation of the Arm and Hand In Children

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THE MANAGEMENT of edema of the arm and hand in children, usually due to trauma or infections, commonly includes wrapping the upper extremity with elastic bandage, elevation on pillows,

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A regular 3 inch stockinette has been used successfully for maintaining elevation of the upper extremities of children in more than 100 cases of upper extremity infections and injuries (excluding fractures). The method described has many advantages, including that it permits activity and complete ambulation if the stand is on wheels.

and application of moleskin adhesive with traction type of elevation, slings, or casts. Most of these types of management are limited by the inability to maintain proper elevation of the extremity because of the excessive activity of the child. If ice packs or hot packs are to be applied, it is difficult to maintain them in the desired position. The following method has been used successfully at the Robert B. Green Memorial Hospital for maintaining elevation of the upper extremities of children without the disadvantages of many other methods.

The materials which are used are simple and are readily available in any hospital. They are:

1. Regular 3 inch stockinette, length as needed.
2. Adhesive tape, three strips 1 inch wide and 5 inches long.
3. Intravenous stand, one metal type stand 6 feet tall.
4. Gauze, 4 inches wide, length as needed.

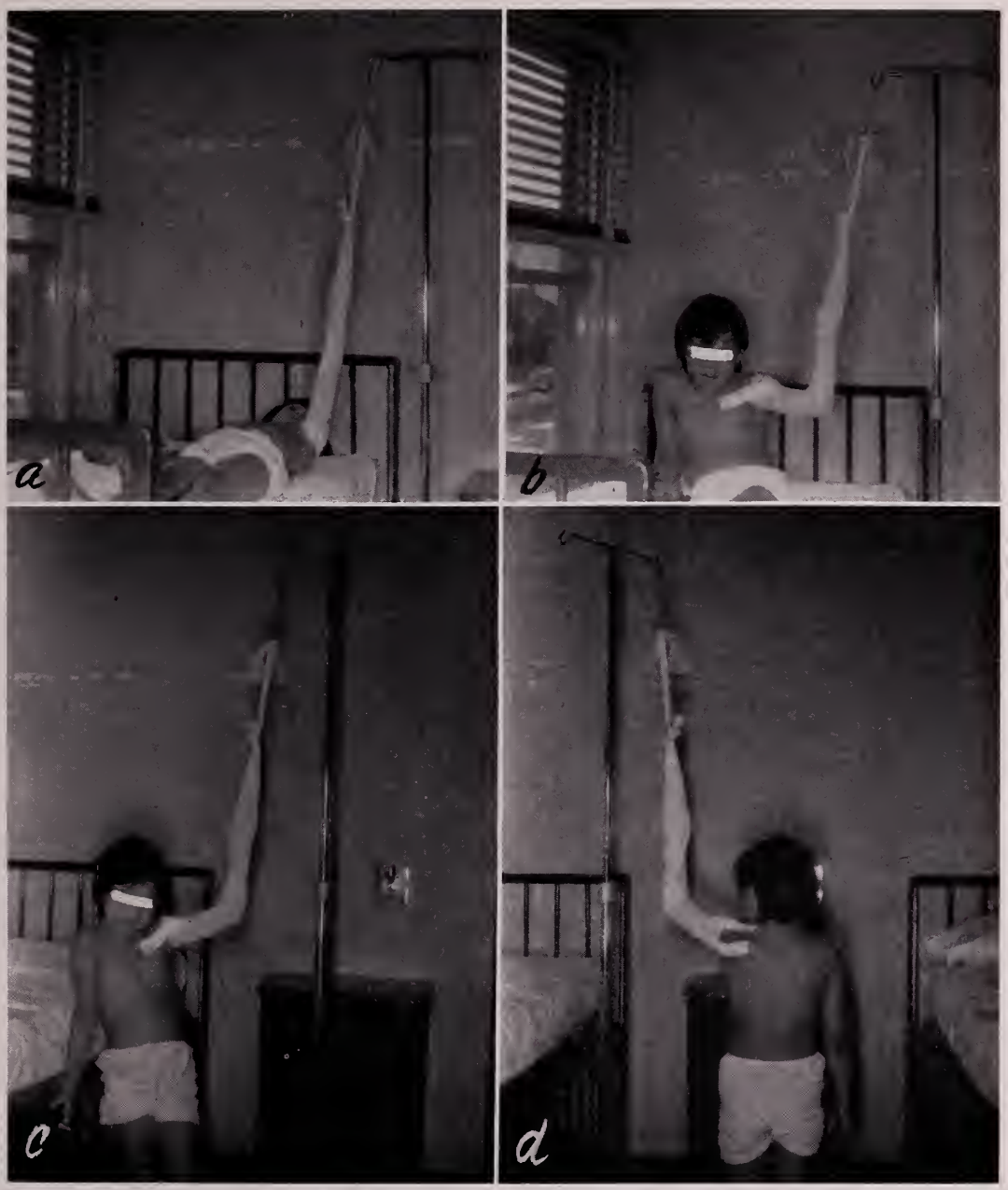

Fig. 1. A child with her arm properly elevated by use of a stockinette.

a. The patient in bed.

b. The patient sitting in bed with no changes in adjustment of the apparatus since the child changed from the lying position to the sitting position.

c. The patient having changed to the standing position with no readjustment of the apparatus.

d. The posterior arrangement of the apparatus.

5. Rubber band, made from the bead on a discarded rubber glove.

If elevation is desired after specific and systemic treatment of the injured arm or hand have been instituted, then the following is done:

1. The arm is measured from the shoulder to the finger tips.
2. A piece of 3 inch stockinette 6 inches longer than the previously mentioned measurement is obtained, open at both ends.
3. The stockinette is slipped on the affected arm until the arm is enclosed up to the shoulder.
4. The upper end of the stockinette is taped to the thorax, not the arm, with the 1 inch wide strips of tape in such a manner that no circumferential constrictive tape is applied.
5. The free end of the stockinette is tied securely to the gauze.
6. The gauze is then attached to the intravenous stand with the rubber band. The length of the gauze is adjusted to elevate the arm properly.

The stockinette in place, with the arm elevated, is shown in figure 1.

When used properly, this method offers many advantages:

1. The arm is maintained in an elevated position regardless of the activity or position of the child.
2. The patient may be completely ambulatory and the arm elevated if an intravenous stand with wheels is used. The patient easily moves the stand around with the uninjured arm and hand.
3. The fingers, wrist, elbow, and shoulder are not completely immobilized and can be exercised as desired.
4. Ice packs or hot packs can be applied to any desired area, and they stay in position satisfactorily. These are usually placed in plastic bags of some type before they are put in the stockinette.
5. In most cases there is no need to place constricting elastic bandages, which are often uncomfortable, around the arm or hand.
6. If it is desired to place an elastic bandage about the arm, this can be done easily under the stockinette.
7. Very little maintenance and observation by the nursing staff is needed to maintain the elevation of the arm.

This method of elevation has been used in more than 100 cases of upper extremity infections and injuries (excluding fractures); and it has been found to be convenient, safe, and very satisfactory. Wrapping the extremity with elastic bandages to control swelling has not been found necessary. The method has been used successfully, also, in treating adults.

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Management Of Uremia

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THE MANAGEMENT of a patient manifesting an elevation of the nonprotein nitrogen level of the blood, commonly referred to as uremia, necessitates the determination, first of all, of the nature of the disturbance responsible for the observed accumulation of nitrogenous waste products in the blood. Such failure of the kidney may be a consequence of three general types of disorder: (1) a functional disturbance secondary to changes occurring outside of the urinary tract, usually designated as extrarenal or

Dr. Arthur Grollmon, professor and chairman, Department of Experimental Medicine, The University of Texas Southwestern Medical School, presented this paper for the Section on General Practice, April 30, 1957, at the annual session of the Texas Medical Association in Dallas.

The rational management of a patient manifesting an elevation of the nonprotein nitrogen level of the blood necessitates first the determination as to whether the condition is due to acute renal failure or chronic renal insufficiency or whether it is extrarenal in origin. Proper treatment is radically different for these three general types of renal disturbance.

prerenal azotemia; (2) an acute failure of renal function; and (3) chronic disease of the kidney which has progressed to the point at which adequate excretion of nitrogenous waste products no longer can occur. The management of each of these three general types of renal disturbance is radically different and hence the need for evaluating the nature of the disturbance in any given patient.

ETIOLOGY

Extrarenal azotemia is the consequence usually of a deficit of circulatory blood volume or extracellular-fluid volume which results in a deficient renal circulation and inadequate renal function. The condition usually follows dehydration, sodium loss, hemorrhage, or shock and results in only a moderate elevation of

the blood urea level unless the precipitating factors are of sufficient severity to induce acute renal failure. The management of extrarenal failure is directed obviously not at the kidney but at correcting the basic cause of the disturbance and is usually easily reversible.

The same fundamental causative factors are responsible for the development of acute renal failure as of extrarenal azotemia except that the precipitating causes are usually more severe and the renal failure results in oliguria or anuria. Moreover, in acute renal failure, the ischemia of the kidney is of such severity as to result in morphologically evident damage of the kidney which necessitates a period of a week or more for its repair. Correcting the original cause of the disturbance, therefore, must be done with sufficient promptness to prevent the development of tubular necrosis. Acute renal failure also may be observed at times in acute glomerular nephritis and other serious involvements of the renal parenchyma or its vascular supply. The treatment of acute renal failure has been described in detail elsewhere[3] and need not be considered further here.

Chronic renal insufficiency may result from various causes, most commonly from glomerulonephritis and pyelonephritis in which disorders the patient is usually seen after the disease has been present for many years and has given rise to irreversible changes in the kidney. However, chronic renal failure may occasionally also result from developmental anomalies, vascular disorders, metabolic disturbances, obstructive or infiltrative lesions, poisoning, and infections. The recognition of these disturbances is obviously important since, at times, surgical or other corrective measures can be utilized to ameliorate the condition or at least prevent its progression. The recognition of infectious processes in the kidney is particularly important now that we have available measures for obliterating them. In general, patients with obstruction, hydronephrosis with residual urine, and infection offer a prognosis which is much more hopeful than is reflected for a similar degree of uremia due to other causes.

In many cases of chronic renal failure, however, little repair can be anticipated, and the problem of management involves merely improving the function of the remaining renal tissue and correcting the abnormalities induced by the renal disturbance. The latter are of great importance, for the kidney not only is concerned with excreting waste products but is also essential for maintaining homeostasis in the organism insofar as salt and water balance and acid-base equilibrium are concerned.[5] Correction of the deviations in these functions not only permits more efficient renal function but also aids in symptomatic improvement of the patient.

PROGNOSIS

The condition of the pale, apathetic, and ofttimes semicomatose patient with uremia who presents himself to the physician should never be deemed hopeless nor treated by the symptomatic use of sedatives and "judicious neglect."[2] Even in patients who appear to be in the last stages of renal decompensation, partial reversal of the condition is often possible if the various factors contributing to the patients' condition can be recognized and treated on sound physiologic principles.[5] Such patients may have at least months, if not years, added to their life and at the worst may be kept more comfortable during the remainder of their life.

Although the high level of urea in the blood seen in uremia is in itself not harmful, it serves as a useful clinical index of the capacity of the kidney to perform its proper functions. Fully two-thirds of both kidneys must be removed before the urea concentrating power of the kidney is impaired. The quantity of urea formed and excreted is related to the amount of protein metabolized, and its excretion is in direct proportion to the amount filtered by the glomeruli.[6]

PREVENTIVE MEASURES

In disorders which result in chronic renal insufficiency, early treatment may prevent fatal uremia. Thus a large percentage of patients with chronic gout succumb to renal insufficiency. Adequate therapy with uricosuric drugs[4] may avoid this complication.

Disturbances in which calcium deposits occur in the kidney and result in diffuse nephrocalcinosis are also preventable. This complication may result from the excessive ingestion of calcium and alkali, the so-called "milk alkali disease," the ingestion of toxic doses of vitamin D, and hyperparathyroidism. Removal of the causative agent in these cases will lead to marked improvement in renal function. Potassium depletion is also damaging to renal function and should be avoided. The deposition of hyalin material in the Kimmelstiel-Wilson syndrome, secondary to diabetes, such chronic infections as syphilis and bacterial endocarditis, multiple myeloma, and amyloid disease also may result in chronic renal failure and may terminate in death from renal insufficiency. In all of these conditions, obviously, attention to the primary disease is necessary if one is to avoid or ameliorate renal dysfunction.

GENERAL THERAPEUTIC MEASURES

Rest.—Bed rest as an adjunct to the treatment of uremia is based on the fact that renal blood flow and the rate of glomerular filtration are increased in the

recumbent as opposed to the sitting or standing position. Thus recumbency may improve renal function. Reduced activity of course also reduces the rate of protein catabolism, which in turn reduces the load on the excretory function of the kidneys.

Diet.—The administration of a high protein diet in experimental renal insufficiency has been shown to precipitate renal decompensation. In the normal animal, also, a high protein diet increases the size of the kidney, presumably by increasing its work load. These observations have led to the advocacy by some of a low protein diet, but the value of reducing the protein intake in chronic nephritis is controversial. From a practical standpoint, the ingestion of excessive amounts of protein by the patient is rarely a problem since appetite is usually poor and nausea is a frequent complication of uremia. It is usually more difficult to ensure an adequate protein and caloric intake to maintain a good nutritional state. Hence, it is unnecessary to subject the patient with uremia to the onerous task of careful restriction of diet. It must be remembered that such restriction, if drastic, may itself entail a burden on the organism and cause renal damage, particularly if the diet is lacking in lipotropic factors. A normal diet with adequate protein to compensate for renal loss as well as to maintain an optimal nutritional state would appear to be most appropriate for these patients. The use of antiemetic drugs, such as chlorpromazine or its congeners, and the avoidance of dehydration are helpful in counteracting nausea and anorexia.

SPECIFIC THERAPEUTIC MEASURES

Factors contributing to further renal impairment in uremic patients which are amenable to treatment include congestive heart failure, dehydration, infection, obstruction, salt depletion, alkalosis, anemia, potassium deficiency, and hypercalcemia. Since a small fraction of the total renal tissue suffices to maintain reasonable function, salvage of a relatively small amount of renal tissue, in a patient with rapidly advancing uremia, may allow renal compensation with a gain of at least months of comfortable and useful life.

Heart Failure.—Patients with congestive failure manifest signs of renal insufficiency as evidenced by the albuminuria, casts, and red blood cells observed in their urine. However, the urine is usually of high specific gravity and the nonprotein nitrogen level rarely exceeds 50 to 60 mg. per 100 cc. In the patient with chronic renal disease, the additional burden of a failing heart may make the difference between renal decompensation and progressive uremia. If hypoalbuminemia is also present, edema formation is aggravated. Digitalization and other measures which improve cardiac function are accordingly indicated in patients manifesting cardiac failure.

Hypertensive cardiovascular disease is a common accompaniment of renal disease. Measures effective in lowering the blood pressure often result in a further deterioration of renal function and hence must be used with caution.

Infection.—Infection of the urinary tract may contribute to the development of renal insufficiency by destruction of functional nephrons and also may aggravate an already compromised renal function and further compromise the limited renal reserve by an acute superimposed interstitial swelling. A search should therefore always be made in the uremic patient for the presence of infection and an attempt made to eradicate it by the available chemotherapeutic agents.

The coliform group of gram-negative organisms are found in about two-thirds of all urinary infections. Escherichia coli and Aerobacter aerogenes are usually found; of less common occurrence but more serious are the infections by Proteus vulgaris and Pseudomonas aeruginosa. Gram-positive staphylococci are also frequently found in the urinary tract, with the coliform group serving as secondary invaders.

Active destruction of renal tissue by pyelonephritis may progress without such clinical evidences of an acute infection as chills, leukocytosis, or such symptoms as dysuria, urinary frequency, and tenderness in the costovertebral angle. Considering the qualitative nature of the routine examination of the urine, even the absence of bacteria or white blood cells as ordinarily reported does not exclude the possibility of infection. For this reason a culture of a specimen of urine obtained by catheterization should be made. The use of indwelling bladder catheters and the urinary stasis of long-standing diabetes or neurologic disorders often lead to a persistent stubborn urinary tract infection.

For the greatest efficiency in treatment, the causative organism should be identified and intensive therapy with the most appropriate antibiotic instituted. Often when a given agent fails, others or a combination will prove successful.[4] The sulfonamides and antibiotics appear to act synergistically in this respect, but none are effective in the presence of continuing obstruction, stone, stricture, or other conditions contributing to chronic infection.

Systemic infections likewise as well as starvation, fever, and injury due to any cause will accelerate azotemia by increasing the breakdown of protein so that the control of these conditions may permit the kidney to regain its compensation. Superimposed infection is not uncommon in renal disease and may lead to manifestations suggesting impending death. With proper treatment, even such terminal conditions as pericarditis may disappear, the nonprotein nitrogen

level may be markedly reduced, and the patient may be restored to a relatively normal condition.[7]

Electrolyte and Water Balance.—Since the kidney normally is concerned with the maintenance of normal water and electrolyte metabolism,[5] patients with chronic renal insufficiency often suffer from derangements in salt and fluid balance which lead to serious symptoms of complaint. Dehydration in particular is often present and leads to a vicious cycle of further deterioration. The decrease in extracellular fluid resulting from dehydration leads to a decrease in glomerular filtration rate and a diminution in the rate of urine flow, which diminishes in turn the excretory efficiency of the already compromised kidney. This results in an accumulation of the nitrogenous waste products as well as of inorganic acids with a resultant acidosis, nausea, and vomiting, which in turn further deplete the extracellular fluid.

It is also to be remembered that the polyuria and nocturia of chronic renal insufficiency will initiate morning dehydration with its associated nausea. In such patients, therefore, the administration of hot milk or coffee immediately upon awakening or some other carbohydrate drink may often prevent a bout of intractable vomiting in the morning.[2] Chlorpromazine in a dose of 10 to 25 mg. given on awakening as well as a half hour before lunch is also frequently useful in combating this troublesome symptom. The acidosis which accompanies uremia probably also contributes to this nausea and may be relieved by the administration of sodium bicarbonate. Drugs or procedures which induce dehydration should be carefully avoided in the uremic patient. For example, withholding breakfast while the patient is in the hospital in order to draw fasting blood samples or for the performance of a concentration test often precipitates a spell of vomiting and nausea and induces further renal decompensation.

The incapacity of patients with chronic nephritis to secrete a concentrated urine may be compensated for in part by excreting a large volume of urine. It is desirable therefore that the patient ingest sufficient fluid to excrete a maximal amount of urine. This may be insured by having the patient collect the daily urinary output in a jar which is marked at the desired volume and insisting that this volume be attained daily.[1] This is particularly important in warm climates where urinary output frequently is low. If the patient is not edematous, the use of salt containing drinks or salty foods or the administration of salt tablets to stimulate thirst and to replace the salt lost in the urine may be necessary. In patients with so-called "salt losing" nephritis, it is particularly essential that salt loss be replaced.

Frequently patients who are edematous when placed on a salt free diet first lose their edema but subsequently redevelop edema because of water excess with the symptoms characteristic of this condition. In these, the administration of ample amounts of salt is obviously necessary to avoid hyponatremia. The salt lost by gastrointestinal secretions in vomiting or diarrhea may lead to salt depletion, and this as well as that lost by profuse sweating or other extraneous losses must be rigidly replaced. The use of mercurial diuretics in patients with congestive failure on a low salt diet may lead to hyponatremia and should be avoided for this reason as well as because of their potential toxicity.

Anemia.—Severe anemia is one of the characteristic changes observed in late stages of chronic renal insufficiency. This is due to an increased destruction of red blood cells and by a depression of the rate of red cell formation due, according to recent studies, to a deficiency of an erythropoietic principle elaborated by the kidney. In many patients with chronic nephritis, the rapid recurrent development of anemia may be the chief presenting problem. The anemia places a load on the circulatory system by increasing the cardiac output and reduces renal function by decreasing renal blood flow and glomerular filtration rate. Palpitation, dyspnea, enfeeblement, edema, angina, and other signs of severe anemia supervene.

The anemia of renal insufficiency is usually normocytic and normochromic. It does not respond to iron or other hematinic agents and must be treated when necessary by periodic transfusions. The use of cobalt salts is of questionable rationale[5] and may cause or aggravate nausea and vomiting when used in effective doses. It must be remembered that a low hematocrit by increasing the filtration fraction through the glomeruli favors a more efficient renal function and hence in some respects may represent a compensatory phenomenon. For this reason the anemia should not be entirely corrected by attempting to restore the hemoglobin to its normal level. Instead, it should be corrected only to the point at which troublesome symptoms are overcome, thereby retaining the advantage of a low hematocrit on renal efficiency. Transfusion reactions are common in these patients, particularly those who have received many transfusions; these may be minimized by the use of washed red blood cells and by a slow rate of infusion. Transfusion with small amounts (150 ml.) of blood daily rather than with a single larger transfusion reduces the risk of a reaction.

SUMMARY

The proper management of the patient with uremia requires a knowledge of the etiologic factors responsible for the condition as well as of the resulting physiologic disturbances. Their recognition not only may serve to prevent progression of the disorder but

will contribute to the maintenance of the patient in a relatively comfortable and useful state for prolonged periods.

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The Bed Commode

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Houston, Texas

A removable mattress plug with bedpan shaped to fit the hole, its edge flush with the mattress, can simplify handling of bed patients.

FIVE YEARS AGO, a friend and patient of mine had a major surgical procedure in a local hospital. Following this surgery, he was more disturbed by the use of the bedpan, both physically and mentally, than he was from the surgical procedure itself.

During his convalescence, he devised a badpan in a mattress that would eliminate most of the usual discomforts caused by the use of the conventional bedpan.

I have used the bed commode in 25 surgical cases, and I have found it to be of great value and comfort in patients with back surgery, orthopedic patients in traction, obese patients, and patients who were unable to assist themselves in any way to get on a conventional bedpan. I, therefore, wish to call the attention of the medical profession to this ingenious arrangement of the mattress and the bedpan.

Figure 1a shows the mattress with the off center plug. The plug is removed and the bedpan is fitted into the hole in the mattress, the top being flush with the mattress (fig. 1b). The patient is then slid over the pan for eliminations and does not have to have any undue pressure on the back, or be disturbed from traction, or be lifted onto the pan by attendants.

Recently, a man in the terminal stage of metastatic sarcoma became absolutely helpless because of the multiple fractures from metastasis. With the use of the bed commode, it was possible for one attendant to care for him and take the usual measures for eliminations.

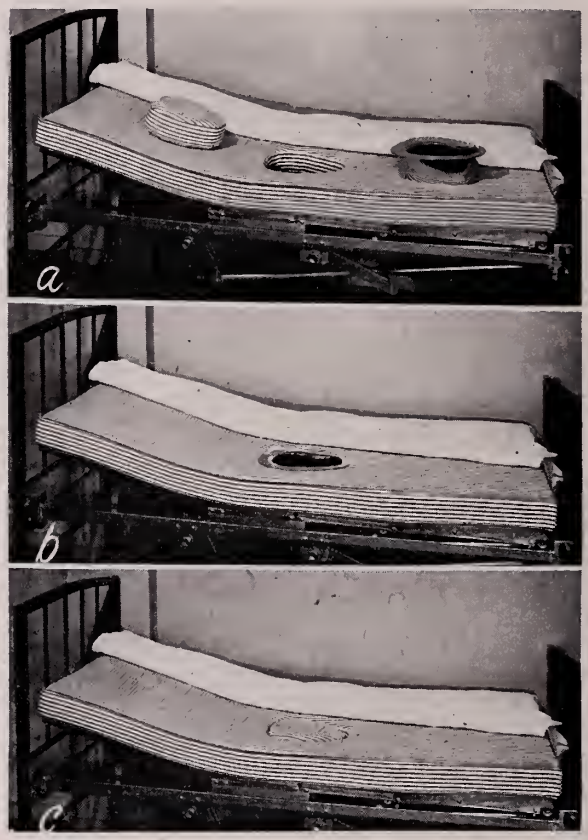

Fig. 1. The bed commode, showing (a) the off center hole with mattress plug and bedpan plug, (b) the bedpan in place (note edge flush with mattress), and (c) the mattress plug in place. The mattress was made by A. J. Shudde, Shudde Mattress Co., 1300 Main St., Houston.

Dr. Tucker, 610 Medical Arts Building, Houston 2.

CORRECTION: RADIATION PROTECTION

The title of table 1 in the article "Radiation Protection" by E. F. Gloyna, Dr. Eng, and Dr. J. C. Rude, published in the December, 1956, issue of the *Journal*, pages 853-860, should have read "Ionizing Radiation Experienced by the Patient Under Normal Conditions" rather than ". . . Experienced by the Physician. . . ." Reference to the table in the text should have been modified accordingly.

CLINICOPATHOLOGIC CONFERENCES

Case 2

MEDICAL STAFF, HARRIS HOSPITAL

Fort Worth, Texas

THE patient's chief complaints were back pain for 24 hours and cramping abdominal pain for six to eight hours. This was the third hospital admission for this 24 year old white Latin-American woman, gravida 5, para 3, whose last normal menstrual period was four to five months prior to this visit. Since her last normal period, she had had intermittent small bleeding episodes and one episode of suprapubic cramping. She had been seen regularly in the outpatient obstetric clinic for this and was placed on stilbestrol therapy of 25 mg. four times a day.

She was doing well until the night of admission, when she was seen in the emergency room for the complaints of back pain of an aching type, cramping abdominal pain, frequency of urination, and dysuria. She had a temperature of 100.4 F. She was thought to have a urinary tract infection and was given some Gantrisin and sent home.

Four hours later, the patient was seen again in the emergency room with the additional complaints of a severe shaking chill, vomiting, and increased temperature to 104.2 F. The vomitus was not remarkable. She also had slight vaginal bleeding at this time. The patient denied any attempt at abortion, denied any recent intercourse, and gave no history of epigastric pain.

A system review was negative except for mastitis of the left breast with a pregnancy five years before.

Her past history was negative. Previous hospital admissions had been for term pregnancies and normal deliveries.

Physical examination on admission revealed a temperature of 104.4 F.; pulse, 130 per minute; respiration, 24; and blood pressure, 110/60. The patient was a well developed, well nourished white woman about the stated age, oriented and cooperative, appearing acutely and severely ill, but not perspiring, nor cyanotic. There was no infection of her throat, nose, or ears and no evidence of blood in any of these passages. The thyroid was not palpable. There was no lymphadenopathy, no stiffness of the neck. The chest was bilaterally symmetrical; the breasts were normal; and the lungs were clear to percussion, palpation, and auscultation. No wheezes, rales, or rhonchi were present at this time. The size and shape of the heart were not noted. There was a tachycardia without a pulse deficit. Pulse was 130 per minute and regular. There was no notation of any murmurs.

There was generalized abdominal tenderness without rebound. The bowel sounds were decreased. A mass was palpated from the pubis to the umbilicus. The outlet to the pelvis was parous, with the uterus enlarged to a four to five month pregnancy. The cervix was blue and soft and free from any suggestion of bleeding at this time. The adnexa were clear. The extremities were free of edema. There was no evidence of thrombosis. Pulsations were present bilaterally. Deep tendon reflexes were normal. No abnormal reflexes nor leg stiffness were recorded. Bilateral costovertebral angle tenderness to percussion was noted.

Laboratory findings on admission revealed red blood cells 3,190,000 per cubic centimeter; hemoglobin 9.2 Gm. per 100 cc.; color index 0.90; hematocrit 29 volumes per cent; white blood cells 5,500 with a differential of 4 per cent monocytes, 3 per cent lymphocytes, 65 per cent segmented cells, and 28 per cent stabs. Urinalysis showed color yellow, trace of albumin, negative for sugar, character cloudy, and the microscopic study was negative. The serum was negative microscopically for hemolysis and the hemotest was negative. The VDRL test for syphilis was negative. Chest and abdominal roentgenograms were negative. The electrocardiogram was reported as normal.

Two hours after her admission to the hospital the patient's blood pressure was found to be 90/50. She was typed and crossmatched and given 2 pints of blood after which her hemoglobin was 13.3 Gm. per 100 cc. with a hematocrit of 40 volumes per 100 cc. Blood pressure was 85/50.

She had developed rather marked vaginal bleeding four hours after entry, and her pulse was still elevated to 120 per minute. Temperature at this time was 100.4 F. The cervix was found dilated with membranes bulging. Further examination revealed a low implantation of the placenta. A consultant considered this to be an inevitable abortion and possible pyelonephritis. The membranes were ruptured, and the patient was placed on antibiotics and oxytoxins and received another 500 cc. of whole blood.

Eight hours after entry, the patient passed a macerated fetus, placenta, and membranes. Bleeding ceased immediately following Ergotrate. She was given dicrysticin and another pint of blood following which the hemoglobin was 14.7 Gm. per 100 cc. and the hematocrit 44 volumes per cent. The white blood cell count showed 28,800 per cubic centimeter with a differential of monocytes 2 per cent, lymphocytes 7 per cent, segmented cells 41 per cent, stabs 47 per cent, juveniles 2 per cent, and eosinophils 1 per cent.

The patient continued to do poorly, however, and the blood pressure was 70/40, following the intravenous administration of 1 L. of fluid with Levophed, cortisone, and Achromycin.

Twelve hours after entry of the patient, midepigastric tenderness was extreme, but no splinting or guarding was noted. One observer felt there was dullness in the left flank at this time. A consultant suggested pancreatitis, but serum amylase was reported as 64 units. Levophed drip was continued; digitalization of the patient was completed; and antibiotic therapy was continued. The possibility of a transfusion reaction was suggested as well.

Twenty-one hours after entry, the blood pressure was not obtainable and the pulse was still very rapid. The patient complained of generalized pain and was in poor condition. She had developed moist rales in both lung bases at this time, and the respiration rate had increased with some cyanosis now present.

The patient's course progressively deteriorated, and 23 hours after entry, she frothed at the mouth and died.

CLINICAL DISCUSSION

DR. JOHN S. MARIETTA: When asked to participate in a clinicopathologic conference, I make several assumptions which are correct more often than not, and therefore help me face the ordeal with a greater

Participants in this conference were Dr. C. T. Ashworth (pathologist), Dr. John S. Marietta (internist), and Dr. J. G. Stouffer (obstetrician and gynecologist).

degree of equanimity. First of these assumptions is that the clinical diagnosis is difficult or there would be little point in presenting the case. Secondly, the problem is almost always unusual so that the pathologist may have an opportunity to present some interesting clinical information to the clinicians. Finally, the diagnosis lies within the field of my specialty—it would be inhumane, otherwise. With these points in mind, I find that the discussion concerns a pregnant woman.

The protocol gives three very definite and informative findings on which a diagnosis can be made. First, irreversible shock was present which appeared rapidly and persisted though normal values for the red blood count and hematocrit were quickly established. Second, the illness is characterized by a severe chill, fever, and a marked elevation of the white blood count. Third, death occurred within 24 hours of the onset of treatment. These findings are significant enough to rule out, at the beginning, hemorrhagic shock, neurogenic shock, and fluid and electrolyte imbalance. Other abnormalities associated with fetal death and the release of "toxic" materials into the blood stream are unlikely in view of the apparently normal response of the clotting mechanism.

Only two possibilities exist in this patient. First, and completely unsupported by the history, is the use of or exposure to some unnamed external toxin or drug which might produce this picture. Because of the lack of supporting evidence, I shall not pursue this further. The only other diagnosis which can be given serious consideration is that of an overwhelming bacteremia. The clinical picture of shock and infection make any other diagnosis unlikely.

It is necessary to attempt to determine the source of the bacteremia. Since the abdominal viscera, particularly the gastrointestinal and genitourinary tracts, are the common sources, they should receive special consideration. However, the search is seriously hampered by the presence of shock which limits the accuracy with which the patient can localize both pain and tenderness and may completely abolish muscle guarding. So a peritonitis following empyema of the gallbladder or an acute appendicitis must be considered. Acute pyelonephritis is also a possibility even in the absence of positive urinary findings. Though denied by the patient, attempted criminal abortion followed by infection is a definite possibility. However, we do not have enough information (and I do not know how it might have been obtained in this patient) to designate a primary source of the bacteremia, and I feel justified in leaving this diagnosis to the pathologist.

Another possibility might be that of a transfusion with grossly contaminated blood, but the transfusions were given only after shock appeared. There is nothing in the history to suggest that the patient had any generalized disease which would lower her resistance to infection such as diabetes, carcinoma, adrenal insufficiency, anemia, malnutrition, liver disease, or change in the serum proteins. Bacteremia often follows genitourinary or gastrointestinal surgery, which was not performed in this patient. My diagnosis must remain an overwhelming bacteremia, probably from a gram-negative organism from an undetermined site but without any coexisting constitutional disease which would decrease resistance to infection.

An excellent reference to this problem is contained in the *Archives of Internal Medicine.*[1] Since this report emanates from a veterans' hospital, the age group is older. Some 35 cases were reviewed with a reported mortality of slightly more than 50 per cent. It is interesting to note the quantitative culture findings ranged from 0.5 to 800 bacteria per milliliter of blood. Those patients having more than 100 bacteria per milliliter in the presence of shock did not recover. Unfortunately, this datum is not available in our patient. The clinical picture and the laboratory findings are almost identical to the description given in our protocol.

The therapy considered in this reference corresponds to the methods used in treating this patient. It is pointed out that shock decreases resistance to infection and that the mortality rate from experimental hemorrhagic shock is reduced when antibiotics are given. Patients with shock from bacteremia have little change in the blood volume, yet a small decrease in the volume may produce a marked lowering of the blood pressure. Vasopressor drugs are also recommended, but neither restoration of blood volume nor maintenance of blood pressure seem to have a significant effect on the mortality rate. Though direct adrenal involvement is unusual, steroid hormones are given, again without changing the eventual outcome. Digitalis is recommended only for rapid auricular fibrillation. Antibiotics are the mainstay of therapy and should be appropriate to the organism and given in sufficient quantity. Yet a Herxheimer reaction with a therapeutic paradox is likely due to the increased liberation of the endotoxin. The modes of treatment seem to leave much to be desired.

FURTHER CLINICAL DISCUSSION

Dr. J. G. Stouffer: There are two salient points in this case that are not mentioned in the protocol. The first point is that this Latin American woman and her husband had very poor command of the English language. As a result, the history was difficult to obtain, and at times the reliability of the history might be questioned. The second point is that about 12 hours after admission to the hospital, it was revealed that the patient had been hospitalized

one year previously because of "gallbladder trouble." Details could not be obtained; however, the husband volunteered that she was very sick at the time and her doctors expressed concern about her recovery.

The protocol tells us first of all that this patient apparently had an overwhelming infection with a temperature of 104.4 F. and a total white blood count of 5,500 per cubic centimeter with 65 per cent segmented cells and 28 per cent stabs.

Bilateral costovertebral angle tenderness suggests pyelonephritis. The negative microscopic urinalysis helps to exclude this, although pyelonephritis has been known to exist without pus being observed in the urine except in showers of cells.

The patient's low blood pressure combined with a rapid pulse would indicate shock—either due to acute blood loss, such as that from intra-abdominal bleeding or from bacteremia with toxins. The fact that her red blood count remained elevated after transfusions would fail to support the diagnosis of shock from blood loss.

I would interpret her vaginal bleeding with subsequent cervical dilatation and bulging fetal membranes as being Mother Nature's way of relieving the patient of the stress of pregnancy in the presence of overwhelming infection—intrauterine and/or systemic infection.

Clinically, the picture changed about 12 hours after admission when midepigastric tenderness was noted to be "extreme." With the additional history of previous gallbladder disease, serious consideration must be given to this organ. The possibility of acute gangrenous cholecystitis with perforation and bile peritonitis might well explain the findings in this case.

The diagnosis of pancreatitis also must be entertained, although one would expect the serum amylase to be higher than 64 units.

The patient's course over her 23 hours of hospitalization before death suggests infection which was caused either by an organism resistant to the antibiotics administered or by an infection which was so overwhelming that antibiotics did not have opportunity to overcome it. The response of the host appears to have been one of acute adrenal cortical insufficiency and vascular collapse in spite of vasopressors and cortisone therapy.

The presence of systemic infection in a pregnant woman who is experiencing vaginal bleeding and lower abdominal pain must always make one think of intrauterine infection. Interference with the pregnancy is usually denied by the patient and her family. Although pelvic examination showed no evidence of previous manipulation, it cannot be excluded.

From the beginning then, the onset of intermittent vaginal bleeding; suprapubic cramping followed by chills, fever, and in turn profuse vaginal bleeding; and delivery of a macerated fetus, coupled with a picture of shock, suggests that some type of vaginal manipulation was performed in an attempt to terminate the pregnancy. Shock which did not respond to repeated blood transfusions after the establishment of a satisfactory red blood cell level would help rule out uterine perforation. I would then favor the diagnosis of overwhelming septicemia with acute adrenal cortical insufficiency, secondary to intrauterine infection from criminal interference. My second choice would be acute gangrenous cholecystitis with perforation and bile peritonitis.

CLINICAL DIAGNOSIS

DR. MARIETTA: My diagnosis is gram-negative bateremic shock, with the primary site of infection undetermined.

DR. STOUFFER: My diagnosis is overwhelming septicemia with acute adrenal cortical insufficiency, secondary to intrauterine infection.

AUTOPSY FINDINGS

DR. C. T. ASHWORTH: The gross findings at autopsy were not very revealing. The lungs were remarkable, however (fig. 1a), presenting a dark reddish-blue discoloration, somewhat more marked in the dependent portions, and having a firm, noncrepitant consistency. They were reddened and exuded a moderate amount of slightly bloody edema fluid on pressure. The right lung weighed 600 Gm. and the left weighed 570 Gm. I considered these lungs to be typical of the change which has been described as "liver lung," the specific histopathologic aspects and physiologic disturbances of which will be given later. The only other striking finding at autopsy was the hypertrophied uterus (fig. 1b), resembling in size a four months' pregnancy. The uterus was boggy and contained some decidual and placental remnants. Although microscopic examination revealed an acute endometritis, grossly definite evidence of significant inflammatory involvement could not be seen.

Of particular significance in our study of this case is the growth of Pseudomonas aeruginosa from the blood stream. This finding developed after the death of the patient and for this reason was not mentioned in the clinical summary. In conjunction with the clinical aspects of the case and the gross findings, I consider this to be indicative of a true bacteremia, and the development of bacteremic shock. Many of the features of the case are entirely characteristic of the syndrome described as gram-negative bacteremic shock.

The demonstration of a marked acute inflammation of the endometrium and myometrium (fig. 1c) and the acute salpingitis in the presence of the recent

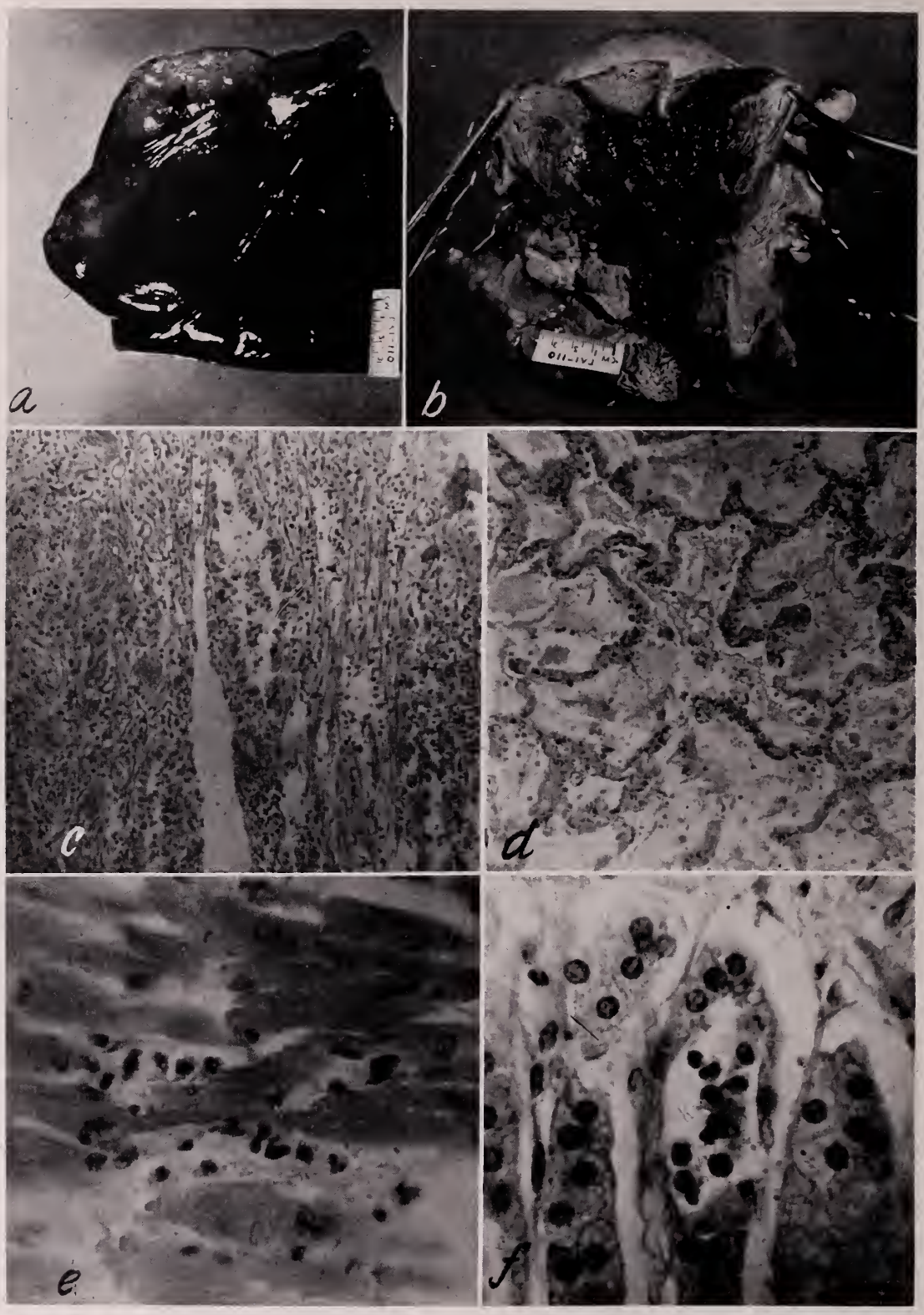

Fig. 1. Autopsy findings. a. Gross photograph of left lung revealing extensive vascular engorgement and dark discoloration due to hemorrhage and hyperemia.

b. Enlarged uterus with hemorrhagic endometritis and hypertrophy of recent pregnancy.

c. Photomicrograph of uterus, showing acute diffuse endometritis and myometritis.

d. Lung, showing marked alveolar capillary hyperemia. The alveoli are filled with protein precipitate of edema fluid and with fibrin deposits.

e. Myocardium, showing focal hyaline necrosis of muscle fibers with local accumulation of polymorphonuclear leukocytes (Zenker's hyaline necrosis).

f. Adrenal cortex, showing focal degeneration and necrosis of adrenocortical cells of zona fasciculata and tubularization of adrenal cortical cords.

abortion indicate rather clearly that there was an overwhelming Pseudomonas infection at these sites, followed by blood stream invasion and the production of a state of bacteremic shock due to the effects of the organisms and their products in the blood.

Some interesting features of the case were revealed by the histologic sections, relating to the pathophysiology of the pulmonary changes and the systemic effects of bacteremic shock.

In the lungs, there was found an unusual degree of alveolar capillary engorgement with blood. In most areas, small alveolar hemorrhages with abundant edema fluid were found. The unusual transudation is manifested further by the presence of a heavy protein content and the presence of fibrin in the alveoli (fig. 1d). There is reason to believe that the capillovenous congestion in the lungs, with edema and fibrin transudation, is due to a combination of injury of the capillary walls by the bacteria and their products and of injury of the myocardium resulting in backward left ventricular failure. It is probable that the segregation of blood and plasma fluid in the vessels and alveoli of the lung accounts in part for the shock produced and for the hemoconcentration which occurred. Certainly the filling of the air spaces of the lung as shown would be sufficient in itself to cause death.

Grossly, the myocardium was not unusual in appearance. However, on microscopic study, there were seen multiple small foci of focal degeneration and focal necrosis (fig. 1e). The dead muscle fibers had become hyalinized and leukocytes collected around them. Most of the muscle fibers of the heart were swollen as a result of parenchymatous degeneration. Fat stains showed no fatty degeneration probably because death occurred too rapidly to allow time for fat to accumulate. These changes in the heart muscle are similar to the myocardopathy seen in diphtheria and to the foci of Zenker's necrosis so typical of typhoid fever. Evidently, overwhelming gram-negative bacteremia can cause similar myocardial damage. It is believed that the amount of myocardial injury represented by these histologic changes would be significant in leading to a decreased cardiac output and peripheral circulatory failure, as well as leading to increased pulmonary hydrostatic pressure.

Other significant parenchymal cellular injury was demonstrated microscopically as focal necroses in the liver, hydropic degeneration and tubularization of the adrenal-cortical cell cords (fig. 1f), and an acute endothelial and epithelial degeneration in the glomeruli of the kidneys. These changes are considered to be due to a specific injurious effect of the bacteria and their products upon specialized parenchymal cells. It is not difficult to interpret these parenchymal degenerative changes as significant factors in the pathogenesis of the physiologic disturbances which characterize the phenomenon of gram-negative bacteremic shock.

The pathologic diagnoses are:

1. Pseudomonas bacteremia with bacteremic shock.
2. Marked pulmonary edema and hyperemia.
3. Focal necrosis and parenchymal degeneration of heart, liver, adrenals, and kidneys.
4. Acute endometritis at site of recent abortion and acute salpingitis.

A further evaluation of the mechanism of production of the clinical picture of shock and death in this case was carried out by Dr. R. G. Harding, Jr., who performed the autopsy and studied this case from the pathologic standpoint. To confirm the pathogenicity of the Pseudomonas organism grown from the blood culture in this case, cultures of the organisms were prepared and injected into four rabbits. Heat killed organisms and live organisms were used, with and without polymyxin B. All rabbits were then observed over a period of 72 hours. All displayed temperature elevations to 106 or 107 F. and 2 of the rabbits died, 1 of which received heat killed organisms without polymyxin B, and the other of which received live organisms without polymyxin B. The cause of death in both rabbits appeared to be a shocklike syndrome. Histologic sections of the lungs (fig. 2) displayed a picture of massive vascular engorgement similar to that observed in the patient.

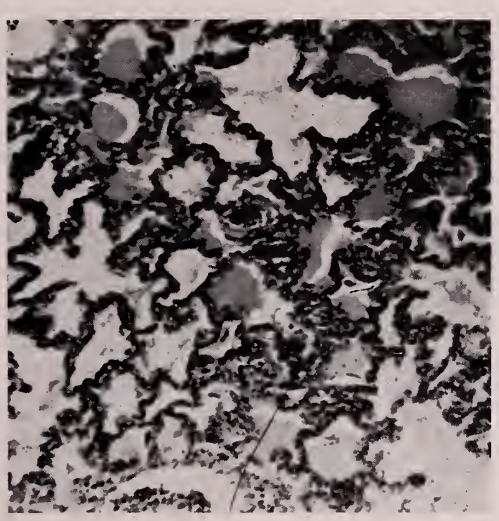

Fig. 2. Photomicrograph of lung of rabbit dying of shock following injection intravenously of a suspension of Pseudomonas aeruginosa isolated from patient's blood. There is marked alveolar capillary engorgement and pulmonary edema.

REFERENCES

1. Hall, W. H., and Gold, D.: Shock Associated with Bacteremia; Review of Thirty-Five Cases, Arch. Int. Med. 96:403-412 (Sept.) 1955.
2. Spittel, J. A., Jr.; Martin, W. J.; and Nichols, D. R.: Bacteremia Owing to Gram-Negative Bacilli: Experiences in Treatment of 137 Patients in 15-Year Period, Ann. Int. Med. 44:302-315 (Feb.) 1956.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-23, 1958 (Executive Council, Sept. 8, 1957). Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, Interim Meeting, San Francisco, April 10-12, 1958. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

JULY

American Congress on Maternal Care, Chicago, July 8-12, 1957. Dr. F. Bayard Carter and Dr. Samuel B. Kirkwood, 116 S. Michigan Ave., Chicago 3, Co-Chm.

Fifth and Sixth Districts Society, Corpus Christi, July 5-6, 1957. Dr. James C. Sharp, Corpus Christi, Pres.; Dr. Winston E. Riley, 2400 Morgan, Corpus Christi, Secy.

Twelfth District Society, July 9, 1957. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 15-17, 1957. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.

AUGUST

No meetings have been reported for August.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. W. B. Sherman, New York, Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of General Practice, Dallas, Spring, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Grosse Point 30, Mich., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Thoracic Surgery, Boston, May 16-18, 1958. Dr. Brian Blades, Washington, D. C., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Edgewater Park, Miss., April 23-25, 1958. Dr. George F. Cahill, New York, Pres.; Dr. W. J. Engel, 2020 E. 93rd, Cleveland, Secy.

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Merle Moore, Portland, Ore., Pres.; Dr. David Thomas, 1467 Harper St., Augusta, Ga., Secy.

American College of Chest Physicians, San Francisco, June 18-22, 1958. Dr. Burgess L. Gordon, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology, Boston, Oct. 20-23, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5-8, 1958. Dr. Ira H. Lockwood, Kansas City, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.

American Gastro-Enterological Association, Washington, D. C., May 30-31, 1958. Dr. M. W. Comfort, Rochester, Minn., Pres.; Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society. Dr. Norman F. Miller, Ann Arbor, Mich., Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Heart Association, Chicago, Oct. 25-29, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N Y., Secy.

American Neurological Association, Atlantic City, June 16-18, 1958. Dr. Israel S. Wechsler, New York, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, White Sulphur Springs, W. Va., May 28-30, 1958. Dr. Walters Atkinson, Watertown, N. Y., Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society. Dr. Daniel C. Darrow, Mission, Kan., Pres; Dr. A. C. McGuinness, 1427 I St., N.W., Washington 5, D. C., Secy.

American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E. Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, San Francisco, May 12-16, 1958. Dr. Harry C. Solomon, Boston 15, Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, New York, April 16-18, 1958. Dr. John Mulholland, New York, Pres.; Dr. William Altemeier, Christian R. Holmes Hospital 19, Cincinnati, Secy.

American Urological Association, New Orleans, April 29-May 1, 1958. Dr. William J. Baker, Chicago, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, Interim Meeting of Delegates, Oct. 18, 1957. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Philadelphia, May 24-29, 1958. Dr. William M. Morgan, Alliance, Ohio, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.
Southwest Regional Cancer Conference, Fort Worth, Sept. 20-21, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.
Southwestern Medical Association, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.
Southwestern Society of Nuclear Medicine. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.
Southwestern Surgical Congress. Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.
Tri-State Medical Assembly, Shreveport, Sept. 12-13, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Bradv, Pres.; Mr. C. H. Rugeley, Wharton, Secy.
Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.
Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.
Texas Air-Medics Association, Houston, April, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.
Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.
Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.
Texas Chapter, American Association of Public Health Physicians. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.
Texas Chapter, American College of Chest Physicians. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.
Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.
Texas Dermatological Society, El Paso, Oct. 12, 1957. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.
Texas Diabetes Association. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.
Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.
Texas Geriatrics Society, Houston, April, 1958. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.
Texas Heart Association. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.
Texas Hospital Association. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.
Texas Industrial Medical Association, Houston, Sept. 26-28, 1957. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.
Texas Neuropsychiatric Association, Dallas, Oct. 18-19, 1957 (with Central Neuropsychiatric Association). Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.
Texas Ophthalmological Association. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.
Texas Orthopedic Association. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.
Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.
Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.
Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.
Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.
Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.
Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.
Texas Society of Anesthesiologists. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.
Texas Society of Gastroenterologists and Proctologists. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.
Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.
Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.
Texas Society of Plastic Surgeons. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.
Texas Surgical Society, Waco, Oct. 7-8, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.
Texas Traumatic Surgical Society. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.
Texas Tuberculosis Association. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, 2406 Manor Road, Austin, Executive Director.
Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.
United States-Mexico Border Public Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.
Second District Society. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.
Third District Society, Amarillo, Spring, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.
Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.
Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.
Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.
Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.
Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.
Eleventh District Society. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.
Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.
Fifteenth District Society. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. John D. Gleckler, 211 N Fannin, Denison, Chm.
Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.
International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.
New Orleans Graduate Medical Assembly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.
North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.
Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.
State Tumor Conference, Wichita Falls. Dr. Edwin C. Bebb, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.
Texas State Board of Medical Examiners, Fort Worth, Dec. 5-7, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

MEDICAL MEETINGS

American Fracture Association

The American Fracture Association will meet in El Paso September 30-October 2, and preceding the meeting (September 29) there will be a postgraduate course sponsored by the University of Texas Postgraduate School of Medicine, El Paso Division.

The postgraduate course will include the following discussions:

Fixation of Fractures of the Patella—Dr. Herbert E. Hipps, Waco.
Mechanical Principles Involved in Fixation of Fractures—Dr. Duncan McKeever, Houston.
External Fixation in Hand Surgery—Dr. William L. Waldrop, Oklahoma City.
Management of Problem Fractures by Transfixion—Dr. Roger Anderson, Seattle.
Fractures of the Nasal and Malar Bones—Dr. John B. Erich, Rochester, Minn.
Social and Psychological Significance of Scars—Dr. Robert T. McElvenny, Chicago.
Fat Embolism—Dr. Garrett Pipkin, Kansas City.
Intramedullary Fixation—Dr. Dana M. Street, Memphis, Tenn.

Following the course there will be a reception at the Hotel Cortez given by Dr. and Mrs. Ralph Homan and Dr. and Mrs. W. Compere Basom. Dr. Basom is chairman of the convention and program committee of the association, and Dr. Homan is director of the El Paso division of the Postgraduate School.

More than 20 physicians will present papers during the meeting of the fracture association, and there will be a round-table luncheon on Monday. For the ladies, there will be a tea, and a banquet dinner-dance is planned for Tuesday evening for the doctors and their wives.

Otolaryngology Assembly

The Department of Otolaryngology, University of Illinois College of Medicine, will have its annual assembly September 30-October 6. An intensive series of lectures and panels concerning advancements in otolaryngology, and evening sessions devoted to surgical anatomy of the head and neck and histopathology of the ear, nose, and throat will be held. Interested physicians may write to the department, 1853 West Polk, Chicago 12.

WHO Will Meet in U. S.

The World Health Assembly, governing body for the World Health Organization, has accepted an invitation to hold its 1958 session in the United States, but no city has been selected. Action was taken by the assembly at its meeting in Geneva. Congress extended the invitation last year, and authorized spending $400,000 to cover additional costs of the meeting here, away from WHO's permanent headquarters in Geneva.

Easter Seal Canventian

The annual convention of the National Society for Crippled Children and Adults—the Easter Seal Society—will be held October 31-November 2 in Chicago. Specialists as well as lay personnel will participate in the meeting.

Pan-Pacific Surgical Assaciatian

The seventh congress of the Pan-Pacific Surgical Association will be held in Honolulu November 14-22. Brochures may be obtained from Dr. F. J. Pinkerton, Director General of the Association, Room 230, Young Building, Honolulu, Hawaii.

Ultrasanics in Medicine

The International Conference of Ultrasonics in Medicine will be held in Los Angeles September 6-7. Dr. John H. Aldes, 4833 Fountain Avenue, Los Angeles 29, can supply information.

Pheasant Hunt Combined with Medical Program

The South Dakota State Medical Association will sponsor the Hunter's Fall Medical Meeting during the first five days of pheasant hunting season in October. Designed for out-of-state doctors, the program will feature morning and evening scientific sessions, leaving the afternoons free for hunting. John C. Foster, Executive Secretary, 300 First National Bank Building, Sioux Falls, can provide all details.

Texas Academy of General Practice

Eight guest speakers will be featured during the meeting in Dallas of the Texas Academy of General Practice, September 22-25. Sunday, September 22, will be devoted to committee meetings, the annual business session, and election of officers. The scientific portion of the meeting will begin Monday and continue through noon Wednesday.

Guest lecturers will be Drs. Carlo Scuderi, Chicago; A. Clayton McCarty, Louisville; John H. Lawrence, Berkeley; Phil C. Schrier, Memphis; Fred M. Taylor, Houston; Philip Thorek, Chicago; Robert J. Booher, New York; and John A. Schindler, Monroe, Wis.

Preceding the assembly, the University of Texas Southwestern Medical School will offer a one day seminar on the collagen diseases at the medical school, Saturday, September 21.

The social program will include a joint luncheon for doctors and their wives Monday, a luncheon for the doctors Tuesday, and the President's Ball on Tuesday evening. The ladies may attend a special brunch and style show at Neiman Marcus, and a hospitality room for them will be open throughout the meeting.

OF GENERAL INTEREST

PERSONALS

Dr. J. R. Maxfield, Jr., Wichita Falls, conducted a symposium on radiation protection at the annual meeting in Oklahoma City of the Society of Nuclear Medicine late in June. *Dr. Maxfield* also was honored in May for his service to the National Foundation for Infantile Paralysis and for outstanding community service. A testimonial "This Is Your Life" program was held for him at a meeting of Rotary International in Wichita Falls.

Dr. Merton M. Minter, San Antonio, has been elected chairman of the board of governors of Southwest Foundation for Research and Education.

Dr. Henry Hoskins, San Antonio, now is governor for Texas of the American College of Chest Physicians. *Dr. George R. Herrmann,* Galveston, former governor, was made regent of the college.

Dr. Paul Burow, Killeen, is the new president of the Mid-Texas Heart Association.

Dr. Ruth Bain recently was chosen one of the four outstanding women of Austin by the Soroptomist Club.

Dr. Pearl Matthaei-Stabbert, San Antonio, was honored in May by the local chapter of Theta Sigma Phi, women's professional journalism fraternity, as the outstanding professional woman in the area.

C. V. Jones, Taft, died in Corpus Christi June 7. He was the father of *Drs. L. Bonham Jones* and *George W. Jones*, both of San Antonio. Four other children survive.

Dr. Collier Rucker, Jacksonville, heads a city beautification committee which has an unusual project, a "downtown color scheme," under way. Plans are to repaint utility poles, parking meter standards, street markers, and the exteriors of business buildings in harmonious colors, thus setting the pace for general improvement of the business district.

Dr. Herman I. Kantor, Dallas, presented a paper, "Complications of Tubal Plastic Surgery," at a recent meeting in New York of the American Society for the Study of Sterility. Dr. Kantor is an associate clinical professor of obstetrics and gynecology at Southwestern Medical School.

The late *Dr. J. Edward Hodges*, Houston, was honored with the awarding of the Hodges' Nursing Scholarship Fund by the Woman's Auxiliary to Harris County Medical Society in May. Two other scholarships for nursing students were presented by the auxiliary at the same time. All three students expect to attend nursing schools in Houston.

Dr. Howard G. Swann, Galveston, received a grant of $16,500 from the Life Insurance Medical Research Fund to continue his research on kidney infection.

Dr. L. M. Shefts, San Antonio, will tour the Pacific this summer as a consultant for the United States Army Surgeon General.

Dr. R. Lee Clark, Jr., Houston, has been appointed section chief by the American College of Surgeons' Committee on Cancer.

Dr. W. S. MacComb and *Dr. G. H. Fletcher*, Houston, reported on the combined use of surgery and radiotherapy in treatment of cancer of the larynx at the recent meeting of the American Radium Society in Quebec, Canada.

Dr. William S. Derrick, Houston anesthesiologist, has received the Alumni Achievement Award for 1957 from George Washington University, Washington, D. C.

Drs. Milton R. Hejtmancik, Galveston; *C. J. Quintanilla*, Harlingen; and *Katharine H. K. Hsu* and *Peron O. Jones*, Houston, received certificates of fellowship in the American College of Chest Physicians at that group's recent meeting in New York.

Dr. Curtice Rosser, Dallas, spoke at the eastern division meeting of the International College of Surgeons early in July in Dixville Notch, N. H. His topic was "Management of Polyps of the Large Bowel."

Dr. Louis Daily and *Dr. Louis J. Girard*, Houston, participated in the program of the fourth interim congress of the Pan-American Association of Ophthalmology and the 1957 conference of the National Society for the Prevention of Blindness, Inc., which were held in New York in April.

Mrs. Berenice W. Williston, mother of *C. Lincoln Williston*, executive secretary of the Texas Medical Association, died in Austin on July 3. Mrs. Williston, who had lived for 19 years in Champaign and Urbana, Ill., had been in Austin the past five months. Survivors other than her son are two brothers and two sisters, all residents of Missouri.

Dr. and Mrs. Charles Binney are the parents of a girl, Marguerite Louise, born February 26 in Harlingen. Laura May was born to *Dr. and Mrs. Edward Egbert* March 7 in El Paso, and a daughter was born to *Dr. and Mrs. John M. Prine* April 6 in Arlington. *Dr. and Mrs. Leroy Lockhart* are parents of twin girls born in Galveston in April. Robert Lee was born April 18 to *Dr. and Mrs. William Ghormley* in Corpus Christi; *Dr. and Mrs. Bernard Schnitzer* announced the arrival of Jeffrey April 26 in Dallas, and *Dr. and Mrs. Byron Spires* are parents of a son born in Galveston in April.

UNIVERSITY OF TEXAS BUDGET

The fifty-fifth Legislature has made appropriations which are included in the budgets for the University of Texas and its branches for 1957-1958. Authorized expenditures for the medical branches are as follows:

Medical Branch, Galveston, $8,926,546, compared with $7,867,389 last year.

Southwestern Medical School, Dallas, $1,988,940, compared with $1,650,705 last year.

M. D. Anderson Hospital and Tumor Institute, Houston, $5,109,117, compared with $4,783,488 last year.

Postgraduate School of Medicine, Houston, $63,828, compared with $46,548 last year. In this instance, no general revenue was involved in either year.

Vaccination Requirements For International Travel

The international certificates of vaccination form was revised in January to include changes of rules made at the Ninth World Health Assembly in 1956. The revision is designed to assist quarantine officials of various nationalities and language backgrounds to interpret readily and correctly the information on the forms. Also, a supplement to the booklet, "Immunization Information for International Travel" includes changes made in immunization requirements. The booklet and supplement are available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 25 cents per copy.

Doctors Had Part In Early Education

The University of Texas will celebrate its seventy-fifth year in 1958, and in observance of this anniversary, a collection of art and artifacts associated with campus life is being assembled in the Texas Memorial Museum in Austin. The first student to win a bachelor of arts degree from that school was Samuel Clark Red, who later became a physician. He received his diploma in 1885, and it now hangs in the Museum's Great Memorial Hall. Among the signers of this historic diploma were Dr. Ashbel Smith, first chairman of the Board of Regents and a leader in medical affairs, and Dr. Thomas D. Wooten, the regent who supervised construction of the first unit of the Old Main Building. Mrs. S. C. Red later established the George Plunkett Red student loan fund, which is administered by the Woman's Auxiliary to the Texas Medical Association.

TMA Members Active in AAPS

Several members of the Texas Medical Association also work with committees of the American Association of Physicians and Surgeons. Dr. Mylie E. Durham, Houston, serves on both the legislative and public relations committees; Dr. Carlos Fuste, Jr., Alvin, is a member of the committees on by-laws and finance; Dr. John K. Glen, Houston, works with

the delegates nominating committee and the finance committee; and Dr. Mal Rumph, besides serving as president-elect of the group, is chairman of the essay contest committee and a member of the newsletter committee. Dr. E. E. Anthony, Fort Worth, is chairman of the membership committee, and serving with him is Dr. Robert Jones, Lancaster. Drs. D. E. Neal, Fort Worth, and E. S. McLarty, Galveston, work with Dr. Rumph on the essay contest committee, and a third Texan on the finance committee is Dr. T. C. Terrell, Fort Worth.

Postoperative Infection Rate Rising

Hospital experts agree that surgeons and hospital operating teams must return to the old-fashioned scrub-up principles of Lister to combat a rising incidence of postoperative infections caused partially by overdependence on antibiotics. Development of bacterial strains resistant to antibiotics, increased hospital utilization, longer operations, and older patients also were mentioned as contributing factors to the number of infections.

The transcript of this panel discussion appears in the June 16 issue of *Hospitals*. Panelists include Dr. Mark H. Lepper, Chicago; Dr. Chester W. Howe, Boston; Sidney Liswood, Toronto; and Dr. Sarah H. Hardwicke, Chicago.

Techniques of surgical operations were named as the single most important item in postoperative infection. "All wounds are contaminated at operation, even under the best of conditions, so this is a matter of degree. How much it is contaminated, whether it gets infected or not, depends more on surgical technique than any one single factor," said Dr. Howe.

Mr. Liswood pointed out that increased infection was bound to occur when more and more people are hospitalized. The community brings diseases into the hospital, and hospitalization is much easier now than it was several years ago. Possible control measures discussed included admission of patients as close to the operation date as possible, and separation of patients just admitted from patients in the postoperative wards.

Oklahoma's Cavalcade of Health

The Cavalcade of Health, an exhibit sponsored by the Oklahoma State Medical Association was held during the time of the semicentennial birthday of Oklahoma June 14-July 7 in Oklahoma City. This exposition featured 42 booths designed to bring health education to the public. A special attraction was "Juno," a German-built exhibit. Her internal organs illuminate in sequence as her voice explains their function. More than 6 miles of wire compose her veins, visible through her plexiglas skin.

Competitions and Grants

Urology Award—The American Urological Association offers an annual award of $1,000 (first prize, $500; second prize, $300; third prize, $200) for essays on the result of some clinical or laboratory research in urology. The competition is limited to urologists who have been graduated not more than 10 years, and to hospital interns and residents doing research work in urology. Essays must be in the hands of William P. Didusch, 1120 North Charles Street, Baltimore, before December 1. Mr. Didusch can supply full details.

Caleb Fiske Prize—"Hormonal Relationships in Breast and Prostatic Cancer—Their Practical Application" will be the topic for this year's dissertation in the Caleb Fiske Essay Contest sponsored by the Rhode Island Medical Society. A cash prize of $350 will be awarded. Information regarding rules may be obtained from the Secretary, Caleb Fiske Fund, Rhode Island Medical Society, 106 Francis Street, Providence 3.

Leukemia Grant—The Leukemia Society will award grants-in-aid to support research projects on leukemia and allied diseases for 1957-1958. Various amounts will be awarded depending on the requirements of the investigators. Applications may be made throughout the year, and they should be received not later than May 15, August 15, November 15, and February 15 for the earliest possible consideration. The Leukemia Society, Inc., 27 William Street, New York 5, will accept applications.

Egg Bombs Show Safety Margin

"Operation Egg Drop," in which five fresh hen eggs dropped on absorptive pads from a height of 115 feet in the rotunda of Colorado's state capitol building, resulted in only one egg being broken. It landed on a crack between two sheets of padding. The yolk of one egg was broken, and the other three were intact after the fall.

The significance of these tests, a joint project of the Colorado State Medical Society and the Denver Police Department, is that when the human head strikes an object the force may not be enough to fracture the skull, but brain damage may result unless the energy absorption is particularly efficient.

Tests were first carried out in 1946; more than 10 years elapsed before practical application of these findings was made in the motorcars of America, and then, not as standard equipment. These studies were undertaken by the Colorado State Medical Society because many of its members believe that injury prevention is equally important with accident prevention. The recent demonstration proves that the human head can be protected if pads 1 to 2 inches thick are placed on those spots within the automobile where serious blows most often occur.

Dr. Sarnoff Gets New Heart Award

A new award for meritorious investigation in the field of cardiovascular disease and related topics has been established by the Jacobs Foundation of Dallas. The award, which carries with it a $1,000 honorarium, was instituted this year with a gift made jointly to the Dallas Heart Association and the University of Texas Southwestern Medical School by the Leslie L. and Helen F. Jacobs Foundation. Dr. Stanley Jay Sarnoff, chief of the laboratory of cardiovascular physiology of the National Heart Institute, Bethesda, Md., has been named the first recipient.

U. S. Alerted on Influenza Epidemic

The United States Health Service has issued statements that physicians should be on the lookout for influenza of the type that now is causing epidemics in the Far East. Tests show that the strain is strikingly different from any type A virus recovered heretofore.

Because of the number of travelers from the East, the disease may show up in this country at any time. All re-

spiratory disease outbreaks should be investigated immediately and reported promptly to the local health authorities, say state health officials. The Texas State Health Department is a cooperating laboratory in the fight against the disease, and antigens are available. During the first three days of illness, suspicious cases should be tested by submitting throat washings for laboratory tests. During the acute phase of illness, serum should be tested. Local health officers or individual physicians can forward samples to the State Health Department.

Scientists at the National Institutes of Health now are conducting tests on a newly developed vaccine for protection against the virus. State health officers have been furnished all details available on the disease; foreign quarantine inspectors at ports of entry are advising all travelers from the Orient and Philippines to see their physicians immediately if they develop respiratory illness within 10 days after arrival; and local health officers are being notified of the names and addresses of passengers who enter the country with a respiratory illness.

Amarillo Paper Wins Award

The Amarillo *Globe-Times* was chosen this year to receive the Texas award for the best editorial presentation of mental health and its impact on the community. This award is given by the Texas Society for Mental Health during Mental Health Week.

GP Survey Results Being Widely Quoted

The provocative results of an 18 month study of general practice conducted by a team of University of North Carolina physician-investigators in their home state and originally published in a special edition of *The Journal of Medical Education* should be required reading for all generalists, says Dr. John S. DeTar, former president of the American Academy of General Practice. The conditions revealed are probably representative of those throughout the country, he is quoted as saying in the May 6 issue of *Medical News*.

The study indicates that:

1. Only one general practitioner in four provides "above average" quality of medical care.
2. After age 35, there are definite signs of a leveling off in quality of practice by all generalists, regardless of training or educational achievement.
3. Only 55 per cent of physicians observed made a regular practice of having the patient sufficiently disrobed during physical examinations; two-thirds usually skipped a vaginal examination; only 52 per cent were credited with using the electrocardiograph competently; slip-ups in sterile technique were charged to 43 per cent.
4. The average general practitioner, at least in North Carolina, works 51 hours a week, earns $15,000 a year, sees 30 patients a day, doesn't worry about sending out statements and frowns on collection agencies. The more money he earns, the more medical journals he buys. Benefits of postgraduate study are "largely dependent on the individual's initiative."

$10,000 Grant for Religion-Mental Health

The National Academy of Religion and Mental Health has announced a grant of $10,000 from the Smith, Kline and French Foundation to provide fellowships for theological students and clergymen of all faiths who want to become chaplains in mental hospitals. A nonprofit organization founded in 1954, the academy is nonsectarian, includes 600 members of the American Psychiatric Association, 500 members of the American Psychological Association, 500 clergymen, and more than 400 psychiatric social workers, cultural anthropologists, educators, and laymen. It serves as consultant to hospitals, medical schools, and mental health groups in the United States and abroad.

Obstetrics, Gynecology Writing Awards Set

The Division of Obstetrics and Gynecology of the United States Section, International College of Surgeons, has announced that two awards will be made for best manuscripts not exceeding 5,000 words submitted by December 1, 1957. First prize will be $500, second prize, $300. Contestants must hold the degree of doctor of medicine from an accredited college of medicine; the two winners will be asked to participate in the scientific program at the 1958 annual congress of the United States and Canadian Sections, International College of Surgeons.

Details and manuscript forms may be obtained by writing Dr. Harvey A. Gollin, secretary of the Committee on Prizes, 55 East Washington Street, Chicago 2.

Texas Doctor on Liaison Committee

The American Psychiatric Association has set up a project to study ways by which a greater understanding of psychiatry can be conveyed to physicians in general practice. It is believed that the urgent need for expanding psychiatric services in communities throughout the nation can be met most readily and practicably by general practitioners armed with basic psychiatric knowledge.

A liaison committee with the American Academy of General Practice will serve the project in an advisory capacity, its membership including Dr. Andrew S. Tomb, Victoria.

Outlook Good for Mental Recovery

A considerable proportion of those who have had mental disorders severe enough to cause disability ultimately recover and are able to resume and maintain a fairly normal level of activity. The rate of recurrence of the disorders is relatively low and decreases as time goes on, and the record of survivorship after recovery from disability is comparatively favorable.

These are the encouraging facts gleaned from a recent study of policyholders by a major life insurance company's statisticians.

The study related solely to men and covered a period between 1925 and 1949. Statisticians point out that new and improved types of therapy which have been developed since the period covered make the outlook even more favorable, adding, however, that "the needs in this field are far from being met."

Premedical Conference Held

A conference to develop closer relationship between college premedical counselors and the medical schools in Texas was held under sponsorship of Baylor University and the University of Texas on the main campus of the University of Texas, Austin, May 11. Premedical advisers from several academic institutions of the state and representatives from the three medical schools presented formal addresses and led group discussions in which everyone attending the conference could exchange information and views.

Credit and Collection: Solving the Problem

A few years ago, so the story goes, a poorly dressed man visited a well known diagnostician in one of our large cities and requested a diagnosis of his case. The physician, being a generous soul interested in all humanity, took the case and called a colleague for consultation. An operation was deemed necessary. The patient, passing not as a pauper, but as a poor man, was charged a modest fee.

Five days later, in one of the best hospitals in the city, the man burst out laughing. To his nurse he said: "I'm just amused at the way I fooled your doctors. My physician told me this operation would cost me $500—but I'm getting it done for $100!"

The man was worth over a million dollars.

This anecdote may be only partially true, but it illustrates one of the reasons for the growing use of medical credit bureaus by doctors in Texas and across the nation.

On the other hand, a Texas doctor performed vital surgery on a patient with whom he never discussed fees in advance. When the patient received his bill for several hundred dollars, he was embarrassed to ask to pay it off at $10 or $15 a month. *So he didn't pay a cent.* Referred to a medical credit bureau by the physician six months later, the situation was resolved by one visit: the patient, really an honest man, was delighted to relieve his feelings of guilt by beginning payment in small monthly installments; eventually, he returned to the doctor for further care.

Again, an illustration of the advantages of such a bureau to the doctor member.

Pro and Con Opinions Flourish

All physicians, to be sure, do not use collection bureaus nor approve of them for reasons to be touched upon briefly later. (A survey* made in 1955 by Dr. J. S. DeTar, past president of the American Academy of General Practice, revealed that of 140 doctors queried, one-third disliked, and preferred not to use, such services ever.)

Yet, in at least four large Texas cities—Dallas, Houston, San Antonio, and Austin—medical credit and collection bureaus are being operated successfully, and doctors in smaller communities have been heard to wonder aloud whether some similar arrangement might work for them.

The need for these bureaus is two-fold, advocates say. One point involves money; the other, public relations.

Figures from the U. S. Department of Commerce show that the age of an account determines its value. After six months, for instance, each "accounts receivable" dollar is worth only 67 cents; after one year, only 45 cents; after two years, 23 cents; after three years, 15 cents; and after five years, 1 cent. Since a doctor's family has to buy groceries and usually expects to do so with money earned by his abilities, it is apparent he should attempt to collect as many of the accounts owed him as possible.

But doctor-patient relations are also a major factor.

If an account is not paid because of a misunderstanding which leaves the patient feeling he has been overcharged, if a patient is in unusual financial straits which he is too embarrassed to explain to the physician, or if the patient is a known "deadbeat" who owes numerous doctors and businesses and whose account is sure to become a bad debt—the physician should know. (In the last mentioned case, it would have been to his advantage to have known the first time the patient appeared in his office.)

Though using similar operating methods and charging approximately the same commissions, the bureaus to be mentioned here are set up in a variety of ways.

Chorm Works Best, Trovis Society Believes

The Travis County Medical Service Bureau, for instance, is a branch of the Travis County Medical Society. Of its three functions, the credit and collection portion is only one, the others being a telephone answering service and an employment service for medical assistants. In the first six months of its existence, the credit bureau made 7,000 contacts and had $200,000 worth of accounts turned over to it, most of these a year old. About half the county society members use it.

The Travis bureau employs three full-time and two part-time collectors, and, says executive secretary Charles Collum, "We have found that nice, charming, middle-aged ladies suit the job best. Some young men, for example, are inclined to be too aggressive from the public relations standpoint. . . ."

In certain cases, one telephone call from the bureau suffices to secure collection, and in some, one home visit by a collector will accomplish the desired end. When the bureau makes collections, its commissions are scheduled thus: 25 per cent, accounts 90-120 days overdue; 33⅓ per cent, 120-180 days overdue; and 50 per cent, more than 180 days overdue, out-of-town, and so on.

But, repeats Mr. Collum, "If a bureau can do nothing but collect money for the doctor, it is not worth the time and effort. It *must* serve as a public relations device."

For Dollas M.D.'s: Business Classes

The Dallas Doctor's Bureau, a division of the Merchants Retail Credit Association of Dallas, was started in January, 1932, by the then local manager of the association, with the approval of Dallas County medical and dental societies.

Vision, courage, and know-how were required to pioneer in any field in those bleak depression days, and the Dallas group considers that the chief reason for the success of the venture was its organizational structure. The MRCA was then 35 years old; the Doctor's Bureau had immediate access to the then 500,000 credit records in the association files; it could obtain credit reports from almost every part of the world; its personnel was already highly trained in credit reporting and investigating; and, finally, it had available for members the Red Book, the consumer rating book published by the association.

In the beginning, costs of operating the Doctor's Bureau were borne by the Merchants Retail Credit Association. After about five years, it was able to pay its own way. Now, its membership exceeds 700 physicians and dentists, and association files have grown to include a million and a half records.

Since its earliest days, the Doctor's Bureau has conducted classes in business management for doctors' offices—classes attended by physicians, their secretaries, and business managers. It has taught the Dallas doctor that an account properly opened is half collected and that patients welcome an open discussion of fees.

In instances in which an account becomes past due, the doctor or his secretary calls the bureau to learn if there have been changes in the financial status and paying habits of the debtor. Later, if the account requires collection help from outside sources, he may use several of the collection aids supplied him by the bureau at a nominal fee. Also, he lists his accounts in the bureau's central files so that they will be included in future credit reports to association members.

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*DeTar, J. S.: *What 140 M.D.s Think of Collection Agencies, Medical Economics, Sept., 1955, pp. 255-262.*

Frequently, persons who have been declined credit at stores or whose applications for home loans have been rejected will call at the offices of the association to learn what unpaid accounts are listed on their records. Often they pay these accounts in order to clear the records. For this service, the Doctor's Bureau makes no charge to its members.

The Dallas bureau, in addition, has a "locate service" for members through which lost addresses of patients and reports on those who have moved out of town are handled. (The biggest problem facing the Dallas bureau today, that office reports, is in getting the doctor to know the value of credit reports on all new patients. "The time to learn of a poor financial condition or patient attitude was when the case was first accepted and the patient eager to make satisfactory arrangements to pay the doctor's fee.")

Commenting on the Dallas bureau, Millard J. Heath, executive secretary of the county society, adds, "It has been our policy here for a number of years not to set up or operate any services for physicians that were handled satisfactorily by private enterprise."

"This type of service should be rendered by the normal business institutions in the community that supply credit information to normal retail businesses, department stores, etc.," declares a Dallas doctor, "so that a large number of people are available for information on the patient's paying habits. That is tied up with the normal business functions of the community rather than with doctors or county societies."

Bexar Bureau Endorsed by Society

In San Antonio, Business and Professional Service—a privately-owned business specializing in professional credits and collections—is the official credit bureau endorsed in June, 1956, by the Bexar County Medical Society. As such, it is successor to a bureau known as the Medical Exchange and Information Service, Inc., which the society owned from 1931 to 1941, but which it dissolved that first year of World War II.

As a member of the National Association of Medical-Dental Bureaus, Inc., Business and Professional Service has had good cooperation from the doctors in listing their delinquent accounts, but, adds Ferne McKenzie Wood of the staff, "the use of the medical clearance service has not as yet been sufficient to make it profitable. We have had less than 100 inquiries during any month, which makes it very expensive in operational costs because it necessitates expensive help to operate; however, we feel that the availability of a medical clearance service rounds out our services to the profession and justifies the maintenance of such a department in our organization."

"Our experience over the past 16 years," she continues, "has been that the professional man is not primarily interested in a credit report in the commercial sense, but rather in being able to obtain immediate information as to the manner in which a medical account might be expected to be treated as an obligation of the patient."

Houston Doctors Financed Own Bureou

In Houston, the Medical and Dental Service Bureau, Inc., was organized in 1936 as a compulsory-membership group: all members of the Harris County Medical Society were obliged to belong, inasmuch as its first funds were raised by assessment on society members. Later, the Houston District Dental Society was invited to join on a similar basis. Eventually, 20 physicians and dentists borrowed $10,000 to supplement the original operating capital, the sum being repaid out of earnings of the bureau.

In 1940 membership became purely voluntary, and today members of the medical and dental societies have a choice of types of memberships, depending on the services they desire. Approximately 1,250 physicians and dentists are now affiliated.

Ownership of this organization, which is nonprofit, is vested in the Houston Academy of Medicine and the Houston Academy of Dentistry, the division being about 85 and 15 per cent, respectively.

Financial growth of the Houston bureau has been consistent, additional capital being set aside year by year to meet city growth. Present assets are more than $300,000—consisting largely of notes held by the bureau from patients who have sought financial aid to defray medical, dental, and hospital expenses. (The actual money has been paid by the bureau to the physicians, dentists, and hospitals.)

The Houston bureau offers its members eight services: (1) telephone locating service, (2) telephone secretarial service, (3) loans to patients, (4) centralized bookkeeping, (5) collection, (6) employment and placement, (7) credit information, and (8) social service.

The collection service department brings in more than $100,000 annually in professional delinquent accounts. Commissions of 50 per cent of the amount collected is charged on all accounts, except in instances in which a member refers $5,000 or more annually to the department; then, it is only 33⅓ per cent.

General membership in the bureau costs a doctor or dentist $9 a year. He pays extra for telephone locating or telephone secretarial services, and if he uses the central bookkeeping system, newest bureau service, cost is predicated on volume of accounts receivable.

Service—to doctor and patient alike—is the bureau's only real commodity. An example of its value to the community is the fact that each month the bureau receives applications for loans from some 300 families unable to meet sudden heavy medical or dental expenses; of these, about 250 loans per month are granted, and recovery on loans averages 98 per cent.

Phoenix Bureou Collects $31,000 o Month

Nationally recognized as one of the most successful organizations of this kind is the Bureau of Medical Economics, a service organization of the Maricopa County Medical Society in Phoenix, Ariz.

Organized in 1951 with the assistance of a $6,000 loan from the medical society, it was self supporting at the end of its fifth month, now handles approximately 20,000 accounts per month (averaging collections of $31,000 a month), and has in its files 185,000 accounts.

There are three reasons why a similar bureau is a "must" in any city large enough to support one, says F. C. MacConnell, Jr., manager. "Prior to the existence of the Maricopa bureau, grievances filed with the medical society reached an alarming number due to harsh and tactless methods of commercial collection agencies," he explains. "In 1951 there were 72 grievances reported, most related to fees; in 1956 there were only 6. Further, our bureau provides for a thorough investigation of each case, a process vital to ethical handling. And, thirdly, if a debtor owes five different doctors, it is best for all concerned if the accounts are handled by one agency and monies received are divided properly."

In Mr. MacConnell's opinion, "There are obvious advantages in a society owned and operated bureau where the systems and procedures used are dictated by the doctors themselves as compared with a privately owned collection agency 'endorsed' by the medical society." In addition to avoiding the harsh commercial collection methods that have hurt their practice in some instances, members of a medical society that operates its own bureau benefit from a better control of grievances and malpractice suits, additional services that otherwise would have to be paid from society dues, and aid in the reduction of dues.

"Our policy in handling delinquent accounts is firm but courteous, keeping in mind at all times the public relations angle," Mr. MacConnell points out. "We are sympathetic if our investigation reveals a genuine hardship exists, but we exhibit a necessary degree of firmness if a person has the financial ability to pay and refuses to cooperate."

"From the public relations angle, which is best," Mr. MacConnell asks: "(1) to use maximum collection procedures if necessary to collect a fair and just bill, (2) to cut a bill in half and have the patient feel that he was overcharged in the beginning, or (3) to forget the whole thing and have the patient think that the doctor so grossly overcharged that he didn't have the nerve to try to collect?"

Individual Basis, Tarrant View

Fort Worth doctors are also informed on the advantages and disadvantages of credit bureaus.

Writes Dr. Emory Davenport, secretary of the Tarrant County Medical Society, "The society does not maintain any medical credit bureau. We did, some years ago, endorse a bureau known as the Doctors' Credit Bureau, which operates entirely independent of the society, and, in addition to this, the Retail Merchants Credit Bureau handles most of the individual doctor's business."

Those doctors—in Texas and elsewhere—who prefer to do without outside assistance in financial relations with their patients are as vehement about their opinions as are the physicians who feel credit bureaus are necessities.

The 47 doctors of 140 queried by Dr. DeTar, for example, say they write off from 25 to 100 per cent of their overdue accounts rather than forward them to an agency.

"I don't want to risk antagonizing my patients," says one.

"The agency's commission here—50 per cent—is far too high," say another. "How many patients realize that only half the money the agency collects from them is ever turned over to the doctor?"

Finally, asserts a Texas general practitioner, "I'm not at all sure that I *want* to know each new patient's credit rating the first time I treat him. If he comes into my office and needs my medical aid, I'm certainly going to give it to him, regardless!"

This, then, is the story of medical credit bureaus. It must remain with the individual doctor to decide whether, and to what extent, he uses one.

EDUCATION

Postgraduate Courses

Radiation for Industrial Physicians and Lawyers, Cincinnati, September 9-14.—Radiation, its language, and the fundamentals needed for the proper appreciation of health and legal problems will be explained the first two days to both groups. Then each group will hear separate lectures aimed at its respective field of interest. Tuition is $100; for further information write to the Secretary, Institute of Industrial Health, Kettering Laboratory, College of Medicine, University of Cincinnati 19.

Laboratory Refresher Training Courses, Chamblee, Ga., and Montgomery, Ala., September 9-March 28.—Twenty-two courses in laboratory methods will be offered during this period under the auspices of the Department of Health, Education, and Welfare Public Health Service, Communicable Disease Center. A list of the courses, information, and application blanks may be secured from the Laboratory Branch, Communicable Disease Center, U. S. Public Health Service, P. O. Box 185, Chamblee, Ga.

Occupational Medicine, New York, September 16-November 8.—Designed for physicians in industry, this course will cover preventive medicine, administrative medicine, occupational diseases, and industrial hygiene. The Office of the Associate Dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16, can supply additional information.

Ophthalmology for Specialists, New York, September 16-December 6.—These courses include:

Histopathology—Dr. A. Marvin Gillman will direct this part-time course September 16-20.

Surgery of the Eye—A full-time course under the direction of Dr. Rudolph Aebli will be given October 28-November 2.

Ophthalmoscopy—This will be a part-time course November 4-8 directed by Dr. George N. Wise.

Surgery of the Cornea—Dr. Ramon Castroviejo will direct this full-time course December 2-6.

Complete information about these courses may be obtained from the Office of the Associate Dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16.

What's New for the General Physician in Medicine, Pediatrics, Psychiatry, and Dermatology? New York, September 17-May 27.—This part-time interdepartmental course will consist of clinical presentations, demonstrations, lectures and panels, and special emphasis on current diagnostic procedures and advances in therapy. Tuition is $300; individual sessions may be attended on a pro rata basis. Information is available from the Office of the Associate Dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16.

Modern Concepts of the Etiology, Pathologic Physiology and Therapy of Diseases with Surgical Implications, New York, September 12-June 12.—This part-time course has been planned to interest general practitioners, surgeons, and internists. Tuition is $300, or on a pro rata basis for each session. For details write the Office of the Associate Dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16.

Occupational Skin Problems, Cincinnati, October 28-November 1.—Morning lectures and clinical demonstrations, afternoon field instruction, and evening panel discussions will acquaint the doctors with cutaneous problems of occupational origin. Application may be made to the Secretary, Institute of Industrial Health, Kettering Laboratory, Eden and Bethesda Avenues, Cincinnati 19. Attendance will be limited.

Pediatric Allergy, New York, November 6-May 28.—Applicants must be certified in pediatrics or have the requirements for certifications. A limited number of allergists practicing with adults may apply. Information is available from the Office of the Dean, New York Medical College, Fifth Avenue at 106th, New York 29.

Postgraduate Courses, 1957-1958, New York—Mount Sinai Hospital, in affiliation with Columbia University, offers a full selection of postgraduate courses both for general practitioners and specialists. General practice courses are in the fields of hematology, internal medicine, neurology, pathology, physiology, psychiatry, and radiology. Specialists may select courses in neurology, ophthalmology, otorhinolaryngology, radiology, or surgery. A description of these courses may be obtained by writing to the Registrar for Postgraduate Medical Instruction, Mount Sinai Hospital, Fifth Avenue and 100th Street, New York 29.

University of Texas Medical Branch

A psychiatric hospital of 150 beds is in the planning stage by the Sealy and Smith Foundation for the University of Texas Medical Branch Hospitals group in Galveston.

New School of Aviation Medicine

Ground was broken in May for the new $9,000,000 School of Aviation Medicine in San Antonio. Four units now are under construction—the research institute, academic building, flight medicine laboratory, and shops. Later, an altitude laboratory will be added. At the research institute will be the aeromedical library, experimental laboratories, and the offices of the commandant.

Classrooms accommodating 700 students, plus an auditorium seating 400 will be in the academic building, and tests of flying fitness will be developed and evaluated in the flight medicine laboratory. The shops will turn out instruments for research projects and will contain electronic equipment to analyze statistical data.

A closed-circuit television system, with a link to Lackland Air Force Base, will enable students in classrooms to watch the treatment of patients by flight surgeons at the Lackland hospital.

It is hoped that the new school will be occupied by July, 1959.

Houston VA Hospital Residency Offered

The Houston Veterans Administration Hospital offers a three year approved residency in physical medicine and rehabilitation, which is available in either the regular or career type appointment. The regular residency has a stipend range of $2,840-$3,550 per annum; the career type, with a staff-status salary, a range of $5,915-$8,990 per annum, with an obligation to serve the Veterans Administration for two years after three years' residency. Further information is available from Dr. Lewis A. Leavitt, chief of the physical medicine and rehabilitation service of the hospital.

MEDICOLEGAL NOTES

Liability of Partner

There is probably only little misunderstanding as to the possible liability of partners or associates in regard to a malpractice action, but it might be enlighting if the applicable principles and the reasons behind them were set forth.

As regards the liability of one partner for the negligent acts of another partner, which result in a malpractice action, there seems to be no doubt as to the liability of all of the partners, although there is a lack of cases dealing with this principle as it applies to physicians. The case that would probably be controlling as to this issue is Lee v. Moore.* (Although this case was reversed on appeal, it was reversed upon a point other than the one presented here.) In this case, the physician was sued for malpractice for the alleged injury to plaintiff's wife while confined in childbirth. Subsequent to the birth of plaintiff's child, the defendant physician agreed to care for the wife. Shortly before the birth of the child, it developed that the defendant physician was going to be unable to be present at the birth of the child. As a result, the defendant physician arranged with another physician to assist him in treating the patient. It is as a result of this action that the malpractice suit was brought.

One of the contentions which is mentioned in this case is whether the two physicians might be considered as partners, and if so, could the defendant physician be held liable for the negligent acts of the physician he had arranged to care for his patient. The court, in its opinion, stated that:

> Likewise, partners in the practice of medicine are all liable for an injury resulting from the negligence, either of omission or commission, of one of the partners within the scope of their partnership business. 30 C.Y.C. p. 1581. Whittaker v. Collins, 25 N.W. 632. The principle or theory upon which this holding is based is that partners in the practice of medicine are sureties for the faithful performance of their engagements by each of them. Hyrne v. Erwin, 23 S.C. 226.

This would seem clearly to set out the rule that one partner can be held liable for the negligent acts of another partner, even though he is not present or had no part in such negligent acts. Of course, this principle is qualified to the extent that the partner guilty of such negligent acts must have been acting within the scope of their partnership business. Even though this has the effect of somewhat limiting the liability of the partner or partners from all liability incurred by another partner, it would be most unlikely that it would exempt them from liability if the negligent partner was in any manner engaged in the treating of a patient or going about the partnership business at the time of the negligent acts.

The next question that arises is as to the liability of an associate, that is, one attending the same patient but not a partner. This question would seem to be readily answered by the case of Floyd v. Michie† in which the family physician was unwilling to diagnose or treat the patient and called in on various occasions two skin specialists. Both consulting physicians arrived at the same diagnosis and prescribed a course of treatment for the family physician to follow. Subsequent to this, the child being treated died, and from such result, a malpractice suit developed. The court, in this case, held upon the authority of Moore v. Lee‡ that

> A physician is not liable for the negligence of another independent practitioner whom he (in the exercise of reasonable care) recommends because he is unwilling to assume the responsibility of diagnosing and treating the malady and whose services are accepted and continued under an independent contract.

This holding seems to answer the question that was raised, but the position is further supported by the Supreme Court of Texas in Moore v. Lee‡ in which the court quoting 21 Ruling Case Law, pages 394-395, held that

> They may make such division of services as in their honest judgment the circumstances may require and each, in serving with the other, is rightly held answerable for his own conduct and as well as for all the wrongful acts or omissions of the other which he observes and lets go on without objection, or which in the exercise of reasonable diligence under the circumstances he should have observed. But beyond that his liability does not extend. Finally, it seems that a physician or surgeon may, on leaving town or in other case of need, recommend or employ another physician or surgeon to treat a patient for him, and in the absence of negligence in such selection, will not be liable for the negligence or lack of skill of the substitute practitioner.

From the reasoning of the last two cited cases, it would seem apparent that in the case of associates there would be no liability imputed to the other physician, unless such other physician observed, or should have observed, wrongful acts being performed and failed to object.

From a study of these cases, I believe it will be possible

**162 S.W. 437.*

†11 S.W. (2d) 657.

‡211 S.W. 214.

to understand better the reasoning and the liability involved in cases concerning partners and associates. In the next issue of the *Journal,* I intend to discuss possible liability to the physician for the acts of others who are not physicians.

—PHILIP R. OVERTON, LL.B., Austin.

National Legislative Developments

The special draft legislation that has been used to call physicians and related professionals into military service for half a dozen years has expired, and the new doctor draft replacement bill (H.R. 6548) went into effect July 1. The priorities and special registration of physicians ceased to exist, although physicians, dentists, and allied specialists who are liable for induction under the regular draft program may be called into service because of their profession. The advisory committees to Selective Service; appointment of physicians to a rank commensurate with their training, experience, and ability; and utilization of doctors as enlisted men if they refuse or fail to qualify for commissions will be continued. Under the special draft act, 10,423 physicians and 4,224 dentists were supplied to the armed forces.

At about the time the draft measure was being completed, the administration's bill for contributory health insurance for federal civilian employees and their dependents—long under study—was introduced into Congress. The new bill provides both basic and major coverage, and a worker would have to take both coverages to get government contributions. For basic coverage the government would pay one-third of the premium up to 50 cents biweekly if the worker alone is insured or up to $1.50 biweekly if dependents are included. Each employee would be free to choose any locally available group plan meeting minimum standards set up in the law. The government contribution for major coverage would be one-third of the premium, 12.5 cents biweekly for the worker alone or 37.5 cents for the employee with dependents. The plan would pay 75 per cent of surgical and other medical costs in excess of $100. Benefits would be limited to a lifetime maximum of $10,000 and a calendar year maximum of $5,000 for the insured or retired worker and each covered dependent. Basic coverage could be continued by the employee after retirement but without government contribution; major coverage would be continued at no cost to the employee after he reached age 65 or upon retirement.

It was expected that H.R. 7238 and its companion bill in the Senate, S. 1209, amending the social security law to liberalize the formula of vendor payments for medical services given to persons receiving public assistance, would be enacted soon after approval by the House Ways and Means Committee early in June.

Meanwhile, Congress has terminated the civil defense programs paid for by funds allocated through the Federal Civil Defense Administration to the Department of Health, Education, and Welfare (and other departments) for use by state and local health departments, medical schools, and hospitals. The MEND program (Medical Education for National Defense), technical aid to hospitals and health facilities in such areas as research against biological and chemical warfare agents, and special training of epidemiologists and sanitary engineers in state and local health departments are examples of the programs that must be suspended. In sustaining the drastic reductions made by the House in FCDA funds, the Senate Appropriations Committee made it clear that the Department of Health, Education, and Welfare is not to continue any of the emergency civil defense programs with its own funds.

At the same time a new dollar record is being set for grants to universities, hospitals, and other institutions for medical research support. Although a compromise was necessary to resolve differences in House and Senate authorizations, it was anticipated that a quarter billion dollars would be allocated to the National Institutes of Health alone.

Various other bills relating to health and medicine, most of them similar to bills already pending, have been introduced in the past few months.

MEMORIAL LIBRARY

MEDICAL ECONOMICS BIBLIOGRAPHIES

I. Investments*

For generations it has been said there were four reasons why people save money:

1. Emergencies, such as temporary loss of earning capacity, sickness, or similar emergencies.
2. Disability, in case the principal income producer is unable to work.
3. Old age.
4. Death, to provide an income for their families.

These four hazards are not within the control of man; therefore, they can only be recognized and plans made to meet them. The physician cannot be compared with the business man, who builds up a successful business enterprise to pass on to his family. The physician builds up a lifetime of good will because of his ability to administer to the ill, but any one of the four hazards can wipe away his income. Therefore, he must plan ahead.

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Unger, Roger H., and Davidson, Joseph W., Jr.: Current Status of Aryl Sulfonylureas in Treatment of Diabetes Mellitus, J.A.M.A. 162:447-453 (Sept. 29) 1956.

Vermooten, Vincent: Further Experience in Treatment of Vesical Tumors with Interstitial Radioactive Cobalt, J. Internat. Coll. Surgeons 27:31-35 (Jan.) 1957.

Wall, John A., and Westbrook, Orian C.: Management of Cancer of Cervix in Private Practice, South. M. J. 50:151-159 (Feb.) 1957.

Weisz, Stephen: Neuropsychiatric Conditions of Interest in Later Years, South. M. J. 50:241-244 (Feb.) 1957.

Williams, E. Carson: Commoner Urologic Problems of Aging, South. M. J. 50:235-236 (Feb.) 1957.

Williams, W. S., and Walling, R. G.: Evaluation of New Prefrontal Lobotomy Technic (Electrocautery), South. M. J. 50:309-315 (March) 1957.

Williamson, A. P.; Blattner, R. J.; and Simonsen, L.: Mechanism of Teratogenic Action of Newcastle Disease Virus in Chick Embryo, J. Immunol. 76:275-280 (April) 1957.

Wolf, Horace L.: Acute Suppurative Jejunitis with Perforation due to Enteroliths, Southwestern Med. 37:746-747 (Dec.) 1956.

Woodward, John F., Jr.: Changing Practice of Otolaryngology, A.M.A. Arch. Otolaryng. 64:486-513 (Dec.) 1956.

Wright, James C., and others: Clinical Study of Complete Heart Block, Am. Heart J. 52:369-378 (Sept.) 1956.

Wright, Vernon K.: Uses and Limitations of Newer Drugs in Treatment of Nervous Conditions, Wisconsin M. J. 55: 1073-1078 (Oct.) 1956.

Wright, William K.: Repair of Chronic Central Perforations of Tympanic Membrane: By Repeated Acid Cautery; By Skin Grafting, Laryngoscope 66:1464-1487 (Nov.) 1956.

Yarbrough, S. M., and Evashwick, G.: Case of Teratoma of Liver with Fourteen Year Postoperative Survival, Cancer 9:848-850 (July-Aug.) 1956.

Yow, E. M.: Current Concepts of Antimicrobial Therapy, GP 15:103-108 (Jan.) 1957.

Gifts to the Library

Austin Anesthesiology Group, Austin, 267 journals.
Dr. W. P. Ball, Cleburne, 2 books.
Dr. Henry L. Hilgartner, Austin, 16 journals; reprints.
Dr. J. O. S. Holt, Dallas, 1 tape recording.
Dr. James E. Kreisle, Austin, 1 book.
Dr. B. E. Pickett, Sr., Carrizo Springs, 8 journals.
Rugeley-Blasingame Clinic, Wharton, 311 journals.
Dr. Nelson L. Schiller, Austin, 17 journals; 42 reprints.
Dr. Claude A. Selby, Sinton, 519 journals.
Dr. Lorraine Stengl, El Campo, 39 journals; 51 reprints.
Dr. R. T. Wilson, Austin, 8 journals.

TAPE RECORDING

A Consultation Hour in Current Problems of Obstetrics and Gynecology

Symposium of the American College of Obstetricians and Gynecologists.

★ Motion Pictures

First a Physician

Color, sound, 27 minutes, 1956.

This film tells an interesting, dramatic story and at the same time reveals the daily contributions made by radiologists in the diagnostic and therapeutic application of radiant energy. It is suitable for showing to civic, school, and medical groups.

Mr. Finley's Feelings

Color, sound, animated, 10 minutes, 1957.

This film on emotional health shows how Tom Finley, during a day of stress, reacts to his boss, his family, his closest friend, and other important people in his life. One important sequence concerns the influence of emotions on an automobile driver's competence. A guide for the discussion leader is provided with each print. Audience discussion may focus on one or more of the following subjects: family life, employee-employer relations, teacher-student relations, traffic safety, and the individual's emotional health.

★ Books

BOOKS NEWLY ACQUIRED

Artz, Curtis P., and Reiss, Eric: *Treatment of Burns,* Philadelphia, W. B. Saunders, 1957.

Bierring, Walter L.: *Rypin's Medical Licensure Examinations,* ed. 8, Philadelphia, J. B. Lippincott, 1957.

Byrd, Oliver E.: *Health Yearbook, 1956,* Stanford, Stanford University Press, 1957.

Chase, Francine: *A Visit to the Hospital,* New York, Grosset and Dunlap, 1957.

Coller, Frederick A.: *Cancer of the Colon and Rectum,* New York, American Cancer Society, 1956.

Davis, Harry A.: *Principles of Surgical Physiology,* New York, Hoeber-Harper, 1957.

Dreyfus, Camille: *Some Milestones in the History of Hematology,* New York, Grune and Stratton, 1957.

Fairfield, Letitia: *Epilepsy, Grand Mal, Petit Mal, Convulsions,* New York, Philosophical Library, 1957.

Gifford, Sanford Robinson (Francis Heed Adler, Ed.): *Textbook on Ophthalmology,* ed. 6, Philadelphia, W. B. Saunders, 1957.

Glaser, Jerome: *Allergy in Childhood,* Springfield, Ill., Charles C Thomas, 1956.

Hewitt, Donald W.: *Alcoholism, A Treatment Guide for General Practitioners,* Philadelphia, Lea and Febiger, 1957.

Hilliard, Marion: *A Woman Doctor Looks at Love and Life,* Garden City, Doubleday, 1957.

Hoch, Paul H., and Zubin, Joseph: *Experimental Psychopathology,* New York, Grune and Stratton, 1957.

Krieghbaum, Hillier: *When Doctors Meet Reporters . . .,* New York, Josiah Macy, Jr. Foundation, New York University Press, 1957.

Lawler, Sylvia D., and Lawler, L. J.: *Human Blood Groups and Inheritance,* Cambridge, Harvard University Press, 1957.

Leopold, Simon S.: *Principles and Methods of Physical Diagnosis,* Philadelphia, W. B. Saunders, 1957.

Lisser, H., and Escamilla, Roberto F.: *Atlas of Clinical Endocrinology,* St. Louis, C. V. Mosby, 1957.

McBryde, Cyril Mitchell: *Signs and Symptoms,* ed. 3, Philadelphia, J. B. Lippincott, 1957.

Maximow, A. A., and Bloom, William: *Textbook of Histology,* Philadelphia, W. B. Saunders, 1957.

Robbins, Stanley L.: *Textbook of Pathology with Clinical Applications,* Philadelphia, W. B. Saunders, 1957.

Schindler, Rudolf: *Synopsis of Gastroenterology,* New York, Grune and Stratton, 1957.

Spiesman, Manuel G., and Malow, Louis: *Essentials of Clinical Proctology,* New York, Grune and Stratton, 1957.

Starr, Paul: *Hypothyroidism, An Essay on Modern Medicine,* Springfield, Ill., Charles C Thomas, 1954.

Talbott, G. D., and Hunsicker, E. R.: *Blood and Bone Marrow Patterns,* New York, Grune and Stratton, 1957.

Tarlov, I. M.: *Spinal Cord Compression,* Springfield, Ill., Charles C Thomas, 1957.

Vorhaus, Martin G.: *Changing Patient-Doctor Relationship,* New York, Horizon, 1957.

Williams, Marian, and Worthingham, Catherine: *Therapeutic Exercises,* W. B. Saunders, 1957.

Year Book of Eye, Ear, Nose and Throat, 1956-57, Chicago, Year Book Publishers, 1957.

Year Book of Urology, 1956-57, Chicago, Year Book Publishers, 1957.

BOOK NOTES

Reflections on Renal Function

JAMES R. ROBINSON, M. D., Ph. D. (Cantab.), *Assistant Director of Research, Department of Experimental Medicine, Medical Research Council and University of Cambridge, Fellow and Assistant Tutor of Emmanuel College. 163 pages. $3.50. Springfield, Ill., Charles C Thomas, 1954.*

This eight chapter book derived from lecture notes of the author at Cambridge University fills the need for a short summary of the physiology of the kidney. It is filled with good information, but it must be read with concentration, as a book on this subject cannot be read as a novel. The author covers glomerular and tubular function, excretion of sodium and water, acid-base balance, control of renal function, and regulation of fluid volume in moderate detail and readable style.

It can be recommended to all interested in renal physiology.

—R. K. Arnett, M. D., Lufkin.

Subacute Bacterial Endocarditis

ANDREW KERR, JR., M. D., *Assistant Professor of Medicine, Louisiana State University School of Medicine, New Orleans. 343 pages. $6.50. Springfield, Ill., Charles C Thomas, 1955.*

In his introduction, the author proposes that two years of antibiotic therapy offer "a propitious time to document our information about subacute bacterial endocarditis." The text is extremely concise and well organized and will prove an outstanding source of reference until the rapidly moving field of antibiotics requires another summation. Any practitioner having a problem case or wishing to prepare a paper on some aspect of bacterial endocarditis will find this monograph an ideal starting point.

The author has presented his material in a very factual manner. Perhaps there is less personal opinion expressed than some may wish, and there are virtually no graphs or charts. The reader will readily come upon the references to original articles which he will want to pursue further in his study of the subject.

Dr. Kerr is to be complimented on a task well done.

—E. Ross Kyger, Jr., Fort Worth.

Pelvimetry

HERBERT THOMS, M. D., *Emeritus Professor of Obstetrics and Gynecology, Yale University School of Medicine, New Haven. 120 pages. $5. New York, Harper and Brothers, 1956.*

This brief monograph by a leading authority is of primary interest to obstetrical specialists for reason of the space devoted to developmental anatomy and pathological variations of the female pelvis. The readibility of the text is considerably reduced by Dr. Thoms' terminology, which is not widely used in this part of the country. However, his clinical points are well taken and the description of his "grid-method" roentgenometry is concise and complete. The concluding chapter, "A Single Film Screening Survey," presents a method of practical importance to every doctor doing obstetrics.

Obviously this publication was not written as a reference book on x-ray pelvimetry, but as a presentation of the author's own conclusions from a wide clinical experience and his well-founded plea for increased use of roentgenometry in obstetrics.

—W. S. Parks, Jr., M. D., Midland.

Wire Brush Surgery, in the Treatment of Certain Cosmetic Defects and Diseases of the Skin

JAMES W. BURKS, JR., M. S., M. D., *Associate Professor of Clinical Medicine, Tulane University of Louisiana School of Medicine. 154 pages. $6.75. Springfield, Ill., Charles C Thomas, 1956.*

This book contains a complete summary of the known published as well as the author's personal experience in 750 skin planings. The 12 chapters cover all of the indications and contraindications of wire brush surgery. The anatomy and histopathology as well as the psychological aspects of this subject are discussed fully. Even for those who never have held an abrasive instrument in their hands, the procedure appears simple after reading this book. There are 68 illustrations that completely tell the story of wire brush surgery. Most of the pictures are multiple. This book serves a useful purpose for all dermatologists and other physicians who wish to undertake wire brush surgery.

—D. O. Poth, M. D., San Antonio.

Fractures, Dislocations and Sprains

JOHN ALBERT KEY, M. D., F.A.C.S., *St. Louis, Clinical Professor Emeritus of Orthopedic Surgery, Washington University School of Medicine; and* H. EARLE CONWELL, M. D., F.A.C.S., *Birmingham, Associate Professor of Orthopaedic Surgery, University of Alabama School of Medicine. ed. 6. 1168 pages. $20. St. Louis, C. V. Mosby, 1956.*

The reviewer has always regarded this book as the outstanding fracture book written in any language. His reason is that this particular book is comprehensive but above all it is practical. Most other books on fractures stress one particular type of treatment over another and tend to include radical methods that are not standard. This book includes only tried and true methods and stresses the simple methods over the most complex ones. In many of the more common fractures and most of the complicated fractures, more than one method is described so that a reader will have available a good comprehensive approach to the problem under discussion. The constantly changing approaches to any problems in fracture treatment have been thoroughly covered. The newer methods of treatment have been included and obsolete ones deleted. The illustrations are excellent. Each subject is presented concisely and without unnecessarily long narration.

—Louis W. Breck, M. D., El Paso.

Home Health Emergencies; A Guide to Home Nursing and First Aid in Family Health Emergencies

Bureau of Public Health, Medical Department, Equitable Life Assurance Society. 256 pages. New York, Equitable Life Assurance Society of the United States, 1956.

Dermatology

DONALD M. PILLSBURY, D.Sc. (Hon.), M.D., *Professor and Director of Department of Dermatology, University of Pennsylvania School of Medicine;* WALTER B. SHELLEY, M.D., Ph.D., *Associate Professor of Dermatology, University of Pennsylvania School of Medicine; and* ALBERT M. KLIGMAN, M.D., Ph.D., *Associate Professor of Dermatology, University of Pennsylvania School of Medicine. 1331 pages. $20. Philadelphia, W. B. Saunders Company, 1956.*

For the practicing physician, particularly one untrained in dermatology, this text at desk side would serve as a useful tool every day in practice. The nonspecialist is afforded a greater opportunity to understand the significance of certain eruptions since the authors have made an unusual effort to explain the patho-physiology in those conditions where it is understood.

By the use of a series of rather ingenious charts, the relationship of various factors, intrinsic and extrinsic, to some of the common dermatoses has been clearly represented. The omission of detailed histopathologic descriptions enhances the appeal of this text to the reader who does not confine his practice to dermatology, and by this omission more space is available for descriptive and illustrative material.

In a commendable attempt to minimize the confusing terminology associated with dermatological entities the authors have simplified the grouping of the various skin diseases but have maintained a thorough coverage of recognized dermatoses. Excellent photography and clear reproduction of these photographs add immeasurably to the text's value.

To select outstanding features of a uniformly good book is difficult, but mention should be made of the initial chapters on anatomy and physiology, which are unusually thorough. The concise summaries at chapter ends are outstanding in being unique as well as in organizing material clearly.

In a final recommendation of this book, it should be stated that it combines into one text dermatologic knowledge, both complete and accurate, written in a style featuring clarity and simplicity.

—H. D. Garrett, M.D., El Paso.

Clinical Selections in Dermatology and Mycology

FREDERICK REHM SCHMIDT, A.B., M.D., *Associate Professor of Dermatology, Northwestern University Medical School, Chicago, with contributions by Thirty-Six Specialists from Various Lands. 505 pages. $10.50. Springfield, Ill., Charles C Thomas, 1956.*

This book is composed of the writings of Dr. Schmidt and 36 collaborators, each of whom is well known in the field of dermatology or mycology and most of whom are from one of the countries of North or South America. Dr. V. Pardo-Castello, associate professor of dermatology and syphilology, University of Havana Medical School, contributes a chapter on "Eczematous Dermatitis;" Dr. Miguel Mazzini, associate professor, Department of Dermatology and Syphilology, Faculty of Medical Science, Buenos Aires, contributes a chapter on "Treatment of Syphilis." Among the collaborators from the United States are the following: Dr. J. Walter Wilson, associate professor, Department of Dermatology, School of Medicine, University of Southern California, writing on "Comparative Pathogenisis of the Deep Mycosis," and Dr. S. William Becker, clinical professor, Department of Dermatology, University of Chicago, contributing a chapter on "Pigmented Nevi and Melanoma."

Dr. Schmidt, associate professor of dermatology, Northwestern University Medical School, practices in San Jose, Costa Rica. He has authored 14 of the book's 43 chapters; his selections range from such controversial subjects as "Vasospasm and Skin Disease" to a hodge-podge chapter entitled "A Pyodermic Synthesis." It would seem that the book was edited to give a place for the author to present his many controversial ideas on various obscure dermatologic disorders.

The greatest value of the book is to be found in the work of the collaborators, especially those from Mexico and South America. These writers have given concise descriptions of various diseases, especially the deep mycoses, and have added many pertinent and original observations of their own. These writers clearly show the great contributions our Latin American colleagues have made to medical science and especially to dermatology and mycology.

The book has no illustrations, but the type is large and the printing excellent. There are adequate references at the end of each chapter, and the volume is well indexed. The book is recommended to dermatologists if for no other reason than the one the author has pointed out in his preface, "Controversial opinions and original ideas are purposely emphasized in order to promote discussions leading to a better understanding of dermatologic problems."

—William C. King, M.D., Austin.

Anatomy for Surgeons: Vol. 2; The Thorax, Abdomen, and Pelvis

W. HENRY HOLLINSHEAD, Ph.D., *Professor of Anatomy, Mayo Foundation, University of Minnesota, Rochester. 934 pages. $12. New York, Harper & Brothers, Paul B. Hoeber, Inc., 1956.*

Dr. Hollinshead presents in readable form the regional anatomy which is of particular importance to the surgeon. He strived for two goals: to present to the younger surgeon a broad basic anatomy together with those details upon which the more mature surgeorn bases his daily work, and to provide for the more mature surgeon a refresher course for his own immediate field and those details slightly outside.

Each chapter has been reviewed and criticized by one or more surgeons or specialists particularly interested in the subject of the chapter.

The book is divided into three volumes "The Head and Neck"; "The Thorax, Abdomen, and Pelvis"; and "The Back and Limbs" so that surgeons interested in a particular field need keep only the pertinent volume on his reference shelf.

Techniques and Procedures of Anesthesia

JOHN ADRIANI, M. D., *Professor of Surgery, School of Medicine, Tulane University of Louisiana, and Clinical Professor of Surgery and Pharmacology, School of Medicine, Louisiana State University, New Orleans. ed. 2. 568 pages. $8.75. Springfield, Ill., Charles C Thomas, 1956.*

This edition is an addition to and revision of the first edition published in 1947. The author uses the same outline form in which he "enumerates the technical details of anesthesia and gives the associated reasons for executing them in the manner described."

The author discusses types of anesthesia, selection of anesthesia, examination of the patient, and preanesthetic

medication. The use of chlorpromazine for premedication was not mentioned.

Trichlorethylene was added to the list of inhalation agents. Muscle relaxants were given more discussion than before in the chapter on intravascular drugs. The chapters on complications, rectal anesthesia, regional anesthesia, resuscitation, and inhalation therapy remain much the same.

The significant addition is the discussion of specialized procedures. This includes the problems concerning both pediatric and geriatric anesthesia. Cardiac surgery has necessitated the use of hypothermia, and the techniques and complications arising from too rapid cooling and rewarming are mentioned. Thoracic surgery and obstetric analgesia and anesthesia also receive attention. Intentional hypotension, controlled respiration, and the use of mechanical respirators, are also discussed. The section on postanesthetic recovery room is important, and suggestions concerning construction, arrangement, beds, equipment, drugs, and personnel are thorough.

The book is well organized and its outline form provides important information which is readily accessible.

—D. L. Hunter, M. D., San Angelo.

The Neuroses in Clinical Practice

HENRY P. LAUGHLIN, M. D., *Assistant Clinical Professor of Psychiatry, George Washington University School of Medicine. 802 pages. Philadelphia, W. B. Saunders, 1956.*

This 14 chapter book is well written, practical, and can be read easily by specialist and general practitioner alike. The first two chapters contain an excellent discussion of the origin, nature, and types of anxiety reactions. The author's "mechanisms of defense" or mental mechanisms are somewhat elaborate. The author then goes into detail defining, describing, giving dynamics and treatment of the various neurotic reactions. In so doing, he makes liberal use of case illustrations.

The book ends with a brief summary of the neuroses following trauma. There follows a glossary of psychiatric concepts and terms.

Being a believer in "grass roots" psychiatry, I recommend the book to one and all.

—Albert D. Pattillo, M. D., Austin.

The Happy Life of a Doctor

ROGER I. LEE, M. D. *278 pages. $4. Boston, Little, Brown and Company, 1956.*

Witty, modest, and warmly personal, this book is an affectionate yet unvarnished glance at the medical life as one man has known and loved it through a wide span of years.

Vivid memories come to life: of the men of the Harvard Medical Unit, with which Dr. Lee made the trip overseas before America entered World War I; of the Massachusetts General Hospital at the time the x-ray machine was first hopefully set up in the room back of the apothecary shop; of work for the National Research Council in World War II—with one proud result being in the abolition of K. P. as punishment in the Army. There are glimpses of such great men of medicine as William Osler and Sir Alexander Fleming, discoverer of penicillin, and of great men of Harvard from the time of President Eliot to that of President Pusey. And there are such diverse personalities as John Singer Sargent, Walt Disney, and Winston Churchill, caught in a revealing moment before a famous speech.

Medical folk and laymen alike will find this story fascinating reading.

Poliomyelitis

W. RITCHIE RUSSELL, C.B.E., M.D., (Edin.), D.Sc. (Oxon.), F.R.C.P. (Edin.), F.R.C.P. (Lond.), *Director, Department of Neurology, United Oxford Hospitals; Clinical Lecturer in Neurology, University of Oxford. ed. 2. 147 pages. $3. London, Edward Arnold (Publishers) Ltd., 1956.*

Sleep

MARIE CARMICHAEL STOPES, D.Sc., Ph.D. *154 pages. $3. New York, Philosophical Library, 1956.*

J.A.M.A. Queries and Minor Notes

Published for the American Medical Association. 334 pages. St. Louis, C. V. Mosby Company, 1956.

A Psychiatric Glossary

COMMITTEE ON PUBLIC INFORMATION, AMERICAN PSYCHIATRIC ASSOCIATION. *48 pages. Washington, D. C., American Psychiatric Association, 1957.*

The American Fluoridation Experiment

F. B. EXNER, M. D., *and* G. L. WALDBOTT, M. D., *edited by James Rorty. 277 pages. $3.75. New York, Devin-Adair Company, 1957.*

ORGANIZATION SECTION

★ **American Medical Association**

Texas Doctors Participate In AMA Business Sessions

The American Medical Association's House of Delegates had a busy session at the June meeting in New York, and Texas doctors were active in the proceedings.

Dr. B. E. Pickett, Sr., Carrizo Springs, chairman of the Council on Constitution and Bylaws, presented his report, which included an amendment to the Constitution, the proposed revision of the principles of medical ethics, and several proposed changes in the Constitution. The proposed principles of medical ethics are printed in toto in this *Journal.*

Texans made a fine showing in the scientific exhibit. In the Section on Orthopedic Surgery, a certificate of merit went to Dr. E. J. Tucker, Houston, and others, for an exhibit on Cultured Calf Bone Grafts. Dr. R. A. Murray, Temple, received honorable mention for his showing on Pollicization of the Index Finger. In the Section on Radiology, Drs. Vincent P. Collins, P. Gibbs, and I. David, Houston, received a certificate of merit for their exhibit, "How Does Cancer Grow?—Pulmonary Metastases."

The Texas delegation presented three resolutions which were approved by the House of Delegates; they concerned support of the Jenkins-Keogh bills, support of the Bricker amendment, and commendation of the television program.

"Dr. Hudson's Secret Journal." No action was taken on a Texas resolution regarding changes in blood banking procedures, but a similar resolution presented by a California delegate was accepted. It advocated full support of the Joint Blood Council, Inc., as the contracting agency for blood procurement with all governmental agencies. No action was taken on a resolution favoring repeal of the income tax law because the legislation in question does not deal with a matter of primary medical concern.

Three resolutions by Texas delegates were not approved. In considering a resolution opposing federal subsidy of medical education, the Reference Committee on Legislation and Public Relations recommended that it not be adopted, and that the House reaffirm its previous position of support for one-time matching federal grants for construction; the House adopted the reference committee's report. Likewise, a Texas resolution that the AMA should obtain membership approval prior to engaging in any medical service program of national impact was disapproved, as was a resolution supporting the proposed twenty-third amendment to the United States Constitution (barring the government from engaging in business, commercial, professional, or industrial enterprise in competition with private citizens).

Dr. John K. Glen, Houston, presented a resolution commending the annual essay contest sponsored by the Association of American Physicians and Surgeons. This was amended to express approval in principle of essay contests, and was adopted.

An important action was the adoption of a guide for relations with the United Mine Workers of America. This statement sets forth general rules about the responsibilities of the medical profession with third parties, specifically the UMWA welfare and retirement fund.

The House adopted a resolution condemning any payments under the Medicare program "to or on behalf of any resident, fellow, intern, or other house officer in similar status who is participating in a training program." Also adopted was a statement intended to provide assistance in attaining medical education of ever higher standards and to serve as a general criterion in the medical school accreditation program.

Two resolutions favoring compulsory inclusion of physicians in the federal social security system, and one calling for a nationwide referendum of AMA members on the issue were rejected.

Miscellaneous actions included recommendation of further study and a program of action to curb narcotic addiction; urging of a more careful screening of radio and television patent medicine advertisements; a directive to the Board of Trustees to investigate indiscriminate use of stimulants; opposition to the establishment of any further veterans facilities for the care of nonservice connected illnesses; opposition to the compulsory assessment of medical men and staff members by hospitals in fund raising campaigns; and recommendation that transportation expenses for section secretaries be paid for AMA meetings which they are required to attend.

Dr. David B. Allman, Atlantic City, was inaugurated as President, and Dr. Gunnar Gunderson, LaCrosse, Wis., was chosen President-Elect. The 1957 Distinguished Service Award of the AMA went to Dr. Tom D. Spies, head of the Department of Nutrition and Metabolism at Northwestern University Medical School, Chicago, for his contributions to the science of nutrition. Born in Ravenna, he is a native Texan. For only the third time in history, the House of Delegates voted a special citation to a layman for outstanding service in advancing the ideals of medicine and contributing to public welfare. Recipient of this award was Henry Viscardi, Jr., West Hempstead, N. Y., founder and president of Abilities, Inc., which employs only severely disabled persons.

The Texas Hospitality Room was a popular gathering place; 510 packs of "Tall Texan" cigarettes were handed out, and each day, 22 dozen yellow roses were flown from Tyler for the Hospitality Room. Continuous background music was furnished.

New Principles of Medical Ethics

These new principles of medical ethics, adopted by the American Medical Association at its most recent meeting, are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public.

Section 1—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

Section 2—Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments.

Section 3—A physician should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle.

Section 4—The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

Section 5—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

Section 6—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

Section 7—In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies, or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient.

Section 8—A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.

Section 9—A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

Section 10—The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community.

Executive Council, PR Conference, Indoctrination Program

Councils and committees of the Texas Medical Association will meet in Austin at the headquarters building September 6 and 7, and the Executive Council will convene Sunday, September 8.

The week end activities also will include a Public Relations Conference and Indoctrination Program on Saturday. Guest speakers at the conference will be Dan J. Forrestal, St. Louis, who is with the Monsanto Chemical Company and president of the Public Relations Society of America; Leo E. Brown, Chicago, director of the Department of Public Relations of the American Medical Association; and Melvin Munn, Dallas, director of public relations for Blue Cross—Blue Shield of Texas. Mr. Forrestal's topic will be "What Impression Do We Make?" and "The Bell Tolls" is the title of Mr. Brown's talk. Mr. Munn will discuss "Something for the Folks."

Two panel discussions will be held as part of the conference; the morning panel will be "Basic Public Relations Projects Which Every County Society Should Undertake" and the afternoon panel will be "What's New in County Public Relations?"

The Indoctrination Program, designed primarily for new members of the Association, will include talks to acquaint the audience with different aspects of organized medicine and with the various services of the Association.

OFFICERS, COUNCILS, AND COMMITTEES

Following are the officers, councils, and committees of the Texas Medical Association for the year 1957-1958 with the year in which their terms of office expire indicated in parentheses.

Officers

Denton Kerr, Houston, President.
Howard O. Smith, Marlin, President-Elect.
David W. Carter, Jr., Dallas, Vice-President.
J. M. Travis, Jacksonville, Secretary (1959).
C. Lincoln Williston, Austin, Executive Secretary.
T. H. Thomason, Fort Worth, Treasurer (1959).
Charles P. Hardwicke, Austin, Speaker of the House of Delegates.
James D. Murphy, Fort Worth, Vice-Speaker of the House of Delegates.

Board of Trustees

R. W. Kimbro, Cleburne, Chairman (1962).
G. V. Brindley, Temple, Vice-Chairman (1960).
J. B. Copeland, San Antonio, Secretary (1961).
Troy A. Shafer, Harlingen (1959).
Byron P. York, Houston (1958).

Board of Councilors

First District: C. E. Oswalt, Jr., Fort Stockton, Vice-Chairman (1958); Russell Holt, El Paso, Vice-Councilor.
Second District: Henrie E. Mast, Midland (1960).
Third District: Robert A. Neblett, Canyon (1959); William J. Campbell, Amarillo, Vice-Councilor.
Fourth District: O. H. Chandler, Ballinger (1958); James P. Anderson, Brady, Vice-Councilor.
Fifth District: Robert F. Gossett, San Antonio (1959).
Sixth District: F. W. Yeager, Corpus Christi, Chairman (1959); S. W. Bohmfalk, Weslaco, Vice-Councilor.
Seventh District: David Wade, Austin (1960); Ray L. Shepperd, Burnet, Vice-Councilor.
Eighth District: Carlos E. Fuste, Jr., Alvin (1960).
Ninth District: Herbert H. Duke, Baytown (1960); James H. Sammons, Highlands, Vice-Councilor.
Tenth District: Stephen B. Tucker, Nacogdoches (1960); Gail Medford, Lufkin, Vice-Councilor.
Eleventh District: C. E. Willingham, Tyler (1958); R. H. Bell, Palestine, Vice-Councilor.
Twelfth District: [1]Tom M. Oliver, Waco, Councilor (1959).
Thirteenth District: Travis Smith, Abilene (1958); W. P. Higgins, Jr., Fort Worth, Vice-Councilor.
Fourteenth District: R. M. Tenery, Waxahachie, Secretary (1958); B. E. Park, Dallas, Vice-Councilor.
Fifteenth District: H. O. Padgett, Marshall (1959); James E. Ball, Mt. Pleasant, Vice-Councilor.

Delegates to the American Medical Association and Alternates

T. C. Terrell, Fort Worth (1959).
Alternate: G. W. Cleveland, Austin (1959).
M. O. Rouse, Dallas, Chairman (1959).
Alternate: J. W. Rainer, Odessa (1959).
J. B. Copeland, San Antonio (1959).
Alternate: George Turner, El Paso (1959).
Troy A. Shafer, Harlingen (1958).
Alternate: John L. Otto, Galveston (1958).
John K. Glen, Houston (1958).
Alternate: Robert W. Kimbro, Cleburne (1958).
L. C. Heare, Port Arthur (1958).
Alternate: [2]Ridings E. Lee, Dallas (1958).
James H. Wooten, Columbus (1958).
Alternate: L. H. Reeves, Fort Worth (1958).
Delegate Designate: J. C. Terrell, Stephenville.
Alternate Delegate Designate: J. L. Cochran, San Antonio.

Executive Council

Ex officio, President (Chairman), President-Elect, Vice-President, Secretary, Executive Secretary, Treasurer, Speaker of the House of Delegates, Vice-Speaker of the House of Delegates, Board of Trustees, Board of Councilors, Texas Delegates to the American Medical Association, Chairmen of all Councils, Members of the Council on Medical Jurisprudence, and Chairman of the Committee on Public Relations.

Council on Medical Defense

Charles L. McGehee, San Antonio, Chairman (1960).
P. M. Kuykendall, Ranger (1962).
Louis W. Breck, El Paso (1961).
John H. Wootters, Houston (1959).
W. P. Philips, Greenville (1958).
Denton Kerr, Houston (ex officio).
C. Lincoln Williston, Austin (ex officio).

Council on Medical Jurisprudence

G. W. Cleveland, Austin, Chairman (1959).
John M. Smith, Jr., San Antonio (1962).
Robert D. Moreton, Fort Worth (1961).
Mylie E. Durham, Jr., Houston (1960).
J. W. Rainer, Odessa (1958).
Denton Kerr, Houston (ex officio).
C. Lincoln Williston, Austin (ex officio).

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[1]*Appointed May 14, 1957, to succeed Dr. Howard O. Smith, Marlin, who resigned upon his election as President-Elect.*

[2]*Appointed April 10, 1957, to succeed Dr. Raleigh R. Curtis, Temple, who resigned April 10, 1957.*

COUNCIL ON SCIENTIFIC WORK

L. Bonham Jones, San Antonio, Chairman (1961).
Herman C. Sehested, Fort Worth (1962).
E. D. McKay, Amarillo (1960).
John C. Kennedy, Houston (1959).
B. H. Williams, Temple (1958).
Denton Kerr, Houston (ex officio).
C. Lincoln Williston, Austin (ex officio).

COUNCIL ON MEDICAL ECONOMICS

Harvey Renger, Hallettsville, Chairman (1962).
A. G. Barsh, Lubbock (1961).
C. F. Jorns, Houston (1960).
Gail Medford, Lufkin (1959).
Charles D. Bussey, Dallas (1958).
Denton Kerr, Houston (ex officio).
C. Lincoln Williston, Austin (ex officio).

COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

Albert W. Hartman, Jr., San Antonio, Chairman (1962).
Truman G. Blocker, Jr., Galveston (1961).
[3]Olin B. Gober, Temple (1960).
William V. Leary, Houston (1959).
John S. Chapman, Dallas (1958).
Denton Kerr, Houston (ex officio).
C. Lincoln Williston, Austin (ex officio).

COUNCIL ON CONSTITUTION AND BY-LAWS

John F. Thomas, Austin, Chairman (1960).
Ridings E. Lee, Dallas (1962).
R. H. Bell, Palestine (1961).
J. Charles Dickson, Houston (1959).
David T. McMahon, Jr., San Antonio (1958).
Charles P. Hardwicke, Austin (ex officio).
James D. Murphy, Fort Worth (ex officio).
Denton Kerr, Houston (ex officio).
C. Lincoln Williston, Austin (ex officio).

WAR COUNCIL

Ex officio, President (Chairman), President-Elect, Vice-President, Secretary, Executive Secretary, Treasurer, Speaker of the House of Delegates, Board of Trustees, Board of Councilors, Chairmen of all Councils, and Chairman of the Committee on Public Relations.

COMMITTEE ON CANCER

Porter Brown, Fort Worth, Chairman (1958).
E. T. Driscoll, Midland (1962).
J. L. Goforth, Dallas (1962).
David H. Allen, Wichita Falls (1961).
Richard G. Granbery, Marshall (1961).
R. Lee Clark, Jr., Houston (1960).
Samuel J. Merrill, Brownsville (1960).
Charles Phillips, Houston (1959).
John D. Weaver, Austin (1959).
Jack G. S. Maxfield, Dallas (1958).

COMMITTEE ON MEDICAL HISTORY

[4]William M. Crawford, Fort Worth, Chairman (1962).
L. H. Reeves, Fort Worth (1961).
Truman C. Terrell, Fort Worth (1960).
[5]W. D. Thames, Jr., Lufkin (1959).
Tate Miller, Dallas (1958).

COMMITTEE ON PUBLIC RELATIONS

Joe R. Donaldson, Pampa, Chairman (1961).
A. F. Clark, Jr., San Antonio (1962).
Thomas Royce, Houston (1960).
Van D. Goodall, Clifton (1959).
Vacancy (1959).
Glenn D. Carlson, Dallas (1958).
[6]Vacancy (1958).

COMMITTEE ON TUBERCULOSIS

W. D. Anderson, San Angelo, Chairman (1961).
J. Walter Park, III, San Antonio (1962).
John A. Wiggins, Fort Worth (1962).
Porter Bailes, Tyler (1961).
[7]Vacancy (1960).
Dan E. Jenkins, Houston (1960).
John W. Middleton, Galveston (1959).
John W. Overstreet, Houston (1959).
Elliott Mendenhall, Dallas (1958).
R. B. Morrison, Austin (1958).

COMMITTEE ON MENTAL HEALTH

Hamilton Ford, Galveston, Chairman (1958).
A. D. Pattillo, Austin (1962).
Dorothy Wyvell, Midland (1962).
W. S. Barcus, Fort Worth (1961).
Robert L. Johnson, Pittsburg (1961).
David M. Keedy, San Antonio (1960).
[8]Holland C. Mitchell, Waco (1960).
Frank S. Schoonover, Fort Worth (1959).
Andrew S. Tomb, Victoria (1959).
P. C. Talkington, Dallas (1958).

COMMITTEE ON PUBLIC HEALTH

Elias Strauss, Dallas, Chairman (1959).
Austin Hill, Houston (1962).
James E. Ball, Mt. Pleasant (1962).
Thomas P. Kennerly, Houston (1961).
Ben Primer, Sr., Austin (1961).
Thomas H. Diseker, San Antonio (1960).
H. K. Brask, San Angelo (1960).
Henry A. Holle, Austin (1959).
T. A. Fears, Beaumont (1958).
William E. Lockhart, Jr., Alpine (1958).

COMMITTEE ON BLOOD BANKS

E. E. Muirhead, Dallas, Chairman (1961).
O. J. Wollenman, Jr., Fort Worth (1962).
K. P. Wittstruck, Waco (1960).
D. A. Todd, San Antonio (1959).
W. J. Emerson, Laredo (1958).

COMMITTEE ON INDUSTRIAL HEALTH

Val C. Baird, Houston, Chairman (1959).
S. W. Bradford, Tyler (1962).
N. B. Daniel, Texarkana (1962).
G. B. Stephenson, Beaumont (1961).
R. H. Thomason, Corpus Christi (1961).
Robert J. Potts, Dallas (1960).
Max E. Johnson, San Antonio (1960).
V. M. Payne, Jr., Dallas (1959).
Ralph G. Greenlee, Midland (1958).
Carl A. Nau, Galveston (1958).

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[3]*Appointed April 3, 1957, to succeed Dr. Delphin von Briesen, El Paso, who resigned.*

[4]*Appointed chairman upon the resignation of Dr. Tate Miller, Dallas, as chairman.*

[5]*Appointed July 3, 1957, to replace Dr. Felix P. Miller, El Paso, who died August 23, 1956.*

[6]*Created by the resignation of Dr. Raleigh R. Curtis, Temple, April 27, 1957.*

[7]*Created by the resignation of Dr. Ralph E. Gray, Lake Jackson, in July, 1956.*

[8]*Appointed May 14, 1957, to succeed Dr. Hardy A. Kemp, Houston, resigned.*

COMMITTEE ON PATIENT CARE

Joseph F. McVeigh, Fort Worth, Chairman (1961).
G. V. Brindley, Jr., Temple (1962).
[9]Vacancy (1960).
G. E. Brereton, Dallas (1959).
Russell D. Holt, Jr., Meridian (1958).

COMMITTEE ON NATIONAL EMERGENCY MEDICAL SERVICE

Ralph E. Gray, Lake Jackson, Chairman (1961).
Ralph A. Munslow, San Antonio (1962).
T. E. Dodd, Austin (1960).
W. H. Hamrick, Houston (1959).
J. M. Hill, Dallas (1958).

COMMITTEE FOR LIAISON WITH WORKMEN'S COMPENSATION INSURANCE COMPANIES

Sam N. Key, Jr., Austin, Chairman (1961).
Edward T. Smith, Houston (1962).
Frederick C. Rehfeldt, Fort Worth (1960).
M. H. Morris, San Antonio (1959).
R. G. Carpenter, Dallas (1958).

[10]COMMITTEE ON SCIENTIFIC EXHIBITS

J. Edward Johnson, Austin, Chairman (1960).
J. E. Miller, Dallas (1962).
May Owen, Fort Worth (1962).
W. S. Fields, Houston (1961).
Jack M. Partain, San Antonio (1961).
Dennis Voulgaris, Wharton (1960).
R. R. White, Temple (1959).
Jasper H. Arnold, Houston (1959).
David Greer, Jr., Houston (1958).
Herbert H. Harris, Houston (1958).

[10]COMMITTEE ON SCHOOL-PHYSICIAN RELATIONS

Jay J. Johns, Taylor, Chairman (1962).
R. K. Arnett, Lufkin (1962).
E. E. Addy, Jr., Cisco (1961).
A. R. Hazzard, Giddings (1961).
M. T. Braswell, Henderson (1960).
Paul H. Mitchell, Corsicana (1960).
E. L. Hunt, Lubbock (1959).
L. H. Leberman, Commerce (1959).
J. Collier Rucker, Jacksonville (1958).
E. E. Lowrey, Gatesville (1958).

[10]COMMITTEE ON RURAL HEALTH AND DOCTOR DISTRIBUTION

Chester U. Callan, Rotan, Chairman (1958).
T. Charles McCormick, Jr., Buda (1962).
Dick K. Cason, Hillsboro (1962).
Roy E. Wilson, Seymour (1961).
William L. Wilson, Austin (1961).
Curtis Haley, St. Augustine (1960).
E. W. Schmidt, Pecos (1960).
George D. Bruce, Baytown (1959).
G. V. Pazdral, Somerville (1959).
J. L. Wright, Jr., Big Lake (1958).

COMMITTEE ON INDOCTRINATION

Ex officio, Chairman, Board of Trustees; Chairman, Board of Councilors; Chairman, Council on Medical Economics; Chairman, Council on Medical Jurisprudence; Chairman, Committee on Public Relations.

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[9]*Created by the resignation of Dr. Truman G. Blocker, Jr., Galveston, on June 29, 1957.*

[10]*Changed from a special to a standing committee at the 1957 annual session.*

Committee for Liaison with State Bar of Texas.—John E. Skogland, Houston, Chairman; F. C. Lowry, Austin; Carlos E. Fuste, Jr., Alvin; David J. Henty, Dallas.

Committee for Study of Health Costs.—Tom B. Bond, Fort Worth, Chairman; J. H. Wootters, Houston; George M. Hilliard, Jacksonville; Russell L. Deter, El Paso; Roy T. Lester, Dallas.

Committee on Cardiovascular Diseases.—G. A. Spikes, Hallettsville, Chairman; P. K. Smith, Wichita Falls; H. H. Latson, Amarillo; Henry M. Winans, Sr., Dallas; Robert E. Leslie, El Campo; George E. Clark, Jr., Austin; J. F. McVeigh, Fort Worth; Paul V. Ledbetter, Houston; George R. Herrmann, Galveston.

Committee on General Arrangements for Annual Session.—Hiram P. Arnold, Chairman; George Waldron; C. A. Dwyer; D. Lewis Moore; John L. Perry; Jack P. Abbott; Thomas L. Royce; Fred P. Thomas; J. T. Billups, all of Houston.

Committee on Maternal Mortality.—Garth L. Jarvis, Galveston, Chairman; E. K. Blewett, Austin; D. M. Gready, Houston; C. P. Hawkins, Fort Worth; W. H. Jondahl, Harlingen; R. E. Moon, San Angelo; William R. Knight, III, Houston; Carl F. Moore, Jr., Austin; Stewart A. Fish, Dallas.

Committee on Memorial Services.—G. W. Waldron, Houston, Chairman; Valin R. Woodward, Austin; Paul R. Stalnaker, Houston; Howard K. Crutcher, Sr., Dallas; John H. Bohmfalk, San Antonio.

Committee on Military and Veterans Affairs.—Wendell H. Hamrick, Houston, Chairman; Milton V. Davis, Dallas; James S. Reitman, Laredo.

Committee on Nuclear and Atomic Medicine.—Herbert C. Allen, Jr., Houston, Chairman; Julian H. Acker, Wichita Falls; E. E. Anthony, Jr., Fort Worth; C. C. Shullenberger, Houston; James A. Chamberlin, Houston; Lloyd R. Hershberger, San Angelo.

Committee on Problems of the Aging.—V. R. Hurst, Longview, Chairman; Wendell D. Gingrich, Galveston, Vice-chairman; Hugh P. Reveley, San Antonio; S. W. Thorn, Houston; Ernest W. Keil, Temple; E. V. Headlee, Odessa; Ben B. Hutchinson, Lubbock; Luther W. Ross, Kerrville.

Committee to Study Contract Medicine.—Sam R. Barnes, Trinity, Chairman; W. M. Wallis, Houston; Homer V. Hedges, Hico; Jack B. Lee, San Antonio; James H. Sammons, Highland.

Committee to Study Hospital-Staff Relationships.—J. Layton Cochran, San Antonio, Chairman; Everett C. Fox, Dallas; W. Shelton Barcus, Fort Worth; E. A. Rowley, Amarillo; Franklin W. Yeager, Corpus Christi.

State Committee for American Medical Education Foundation.—D. J. Sibley, Fort Stockton, Chairman; Thomas M. Runge, Austin; Luke W. Able, Houston; John R. Cook, Trinity; N. D. Boyd, Kingsville; Jack C. Postlewaite, El Paso; James R. Schofield, Houston; A. L. Delaney, Liberty; James E. Altgelt, San Antonio.

Appointees to Hospital-Insurance-Physicians Joint Advisory Committee.—Harvey Renger, Hallettsville; C. D. Bussey, Dallas.

Appointees to the State Coordinating Council on Tuberculosis.—W. D. Anderson, San Angelo; Elliott Mendenhall, Dallas.

Appointees to Texas Commission on Patient Care.—Joseph F. McVeigh, Fort Worth; G. V. Brindley, Jr., Temple; Russell D. Holt, Meridian; Vacancy.

Advisers to Texas Chapter of the Student American Medical Association.—John K. Glen, Houston, Baylor.

Appointees to Advisory Committee to the Texas State Board of Education.—J. J. Johns, Taylor.

Appointees to Advisory Committee to Texas State Hospitals and Special Schools.—E. Ivan Bruce, Jr., Galveston (Mental Health); Elliott Mendenhall, Dallas (Tuberculosis).

★ County Societies

For Tom Green: 'Clinical Day'

The Tom Green-Eight County Medical Society sponsored a Clinical Day Saturday, June 1, at the Cactus Hotel in San Angelo. A banquet and cocktail party were included in the day's events.

Also of interest to physicians in this area is the recent installation of a "number-flash" call system in the San Angelo city auditorium.

An obstetrical and gynecological out-patient clinic is being developed in connection with the city-county welfare unit in San Angelo. Approval of the project has been voted by the Tom Green-Eight County Medical Society, which suggested that a schedule for participation by cooperating members of the society be prepared.

Harris Doctors Fete Community Leaders

In observance of Medical Education Week, the public relations and executive boards of the *Harris County Medical Society* were hosts at a luncheon for 100 business and industrial leaders of the county at the Doctors' Club. Deans of all medical schools in the state were also invited. This event marked the first occasion on which the society and this group of guests met to discuss problems of mutual concern.

Programs

Recent county society programs have included:

Wilbarger County Society.—"Ureteral Calculi," Dr. J. R. Reagan, chief of the Reagan Urology Group, Wichita Falls.

Bastrop-Lee Counties Society.—"Pulmonary Insufficiency," Dr. Donald Pohl, Austin, and "Glaucoma," Dr. R. M. Rothen, Austin.

Hill County Society.—"Pediatric Emergencies," Dr. Richard N. Beskow, Hillsboro.

Harris County Society.—"Management of Lymphoma," Dr. C. C. Shullenberger; "Management of Soft Tissue Tumors," Dr. Richard Martin; and "Management of Carcinoma of the Cervix," Dr. Felix Rutledge, Houston.

Big Bend Counties Society.—"Pathology of Bone Tumors," Dr. George Turner, El Paso.

Falls County Society.—"Ulcerative Colitis—Its Diagnosis and Therapy," Dr. N. C. Hightower, Temple.

Cameron-Willacy Counties Society.—"Unconstitutionality of the Income Tax," a film; "Medical Secretaries' Workshop," Tom Edgell, Brownsville; "The Present Day Clinical Use of Radioactive Isotopes," Dr. Ruskin C. Norman, San Antonio.

Hardeman-Cottle-Foard-Motley Counties Society.—"Common Rectal Diseases and Treatments," Dr. E. A. Cox, Wichita Falls.

More Officers Reported

New officers of county societies not previously published in the *Journal* include:

Cherokee—President, Dr. H. F. Rives, Jacksonville; vice-president, Dr. F. H. Brigham, Rusk; secretary-treasurer, Dr. T. H. Cobble, Rusk; reporter and assistant secretary, Dr. Harbert Davenport, Jr., Jacksonville; delegate, Dr. G. M. Hilliard, Jacksonville.

Coleman—President, Dr. Morris D. Mann; vice-president, Dr. Roy R. Lovelady; secretary-treasurer and delegate, Dr. R. F. Kemper, all of Coleman.

Lamar—President and delegate, Dr. Courtney M. Townsend, Paris; vice-president, Dr. William D. Roberts, Paris; secretary-treasurer, Dr. H. C. Chancellor, Honey Grove.

Walker-Madison-Trinity—President, Dr. L. Ewing Bush, Huntsville; vice-president, Dr. Jesse B. Heath, Madisonville; secretary-treasurer, Dr. Eugene M. Addison, Huntsville; delegate, Dr. W. B. Veazey, Huntsville.

★ District Societies

Twelfth District Society

The Twelfth District Medical Society met in Temple July 3 and heard scientific presentations from members of the Baylor University College of Medicine staff.

Dr. Ellard M. Yow spoke on "Recent Advances in Antibiotic Therapy" and "Steroids in Systemic Infections;" Dr. E. Stanley Crawford discussed "The Modern Treatment of Arteriosclerosis," and "Hiatus Hernia and Its Complications;" Dr. Stanley F. Rogers spoke on "A Simplified Approach to Complete Perineal Repair;" and Dr. Warren M. Jacobs chose "Management of the Rh-Negative Obstetrical Patient" as his subject. All the speakers are from Houston.

At a luncheon attended by both society and auxiliary members, Dr. Ramon Tolavera spoke on the Philippine Islands.

WOMAN'S AUXILIARY

DOCTORS: THIS IS YOUR AUXILIARY

When your wife casually mentions at the dinner table in answer to your question, "What have you been doing today?" that she went to a medical auxiliary meeting, don't drop the subject there.

If you will just perk up and ask a few questions you may find that your wife hasn't been out to just another feminine gab-fest, but that she has been serving your interests well.

Let her discuss what a splendid job of public relations in their own communities the wives of Texas doctors are doing through the many projects they undertake as Auxiliary members.

Let her tell you how much active participation in the local medical auxiliary increases the awareness of the doc-

Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

tor's wife of her rare opportunity to be a good will ambassador for the medical profession.

Flatter her by expressing a real interest in the many and varied projects that auxiliaries throughout the state are undertaking for the coming year.

Here are a few for an eye-opener:

Recruitment: This year the Auxiliary is expanding its recruitment drive to include all phases of medical and x-ray technical work, dietetics, physical and occupational therapy, pharmacology, medical records library work, and social work. This is in addition to its nurse recruitment program which is already showing results.

Science Fairs: If you have had the opportunity to see young contestants in your local science fair exhibit and explain their projects you know that auxiliaries sponsoring these fairs are doing a big and important job. Young Texas scientists who competed at the Eighth National Science Fair held at Los Angeles in May walked off with one second place award and three fourth place awards. And all but one of those four national winners from Texas were Auxiliary-sponsored contestants.

Civil Defense: Civil Defense projects of some Texas Auxiliaries are amazing in their scope and in the carefully detailed plans that have been worked out in case of any kind of community disaster. Doctors' wives can do much to stir up local interest in civil defense programs and to combat the attitude of so many citizens that "It can't happen here."

Mental Health: Auxiliary members throughout the state are working hard on the problem of mental health. Some are working in child guidance clinics and clinics for retarded children. Some are serving on county and state boards. And throughout the state the young and the old, the sick and the helpless are being remembered, entertained, encouraged, and helped by doctors' wives who are determined that they shall not be forgotten or neglected because their homes are institutions.

AMEF: Last year Texas Auxiliaries gave more than $10,000 to the AMEF. This year they hope to give more, as they are pushing their newest money-making project, the selling of Christmas cards, with all profits earmarked for the AMEF.

Legislative: Auxiliary members are deeply interested in legislation that either directly or indirectly affects the medical profession. Through their auxiliaries they learn the most effective means of making their voices heard and are encouraged and reminded to be active politically.

Library Fund: Our contributions to the Library Fund are being used to buy books and films for the Memorial Library of the Texas Medical Association. Also, members are being encouraged to turn over to the Medical Library books from private collections that are no longer in use because of the death or retirement of their owners.

Memorial Fund: Auxiliary members contribute each year to the Memorial Fund from which the Auxiliary makes cash gifts to take care of the financial needs of widows and dependents of Texas doctors. In doing for others, doctors' wives are not forgetting their duty to look after their own.

These are by no means all of the ways in which Auxiliary members are striving to back up the medical profession and to use their opportunities as doctors' wives to better their communities.

In the months to come the space in the *Texas State Journal of Medicine* that has been designated for Auxiliary news will be used to tell more about Auxiliary projects.

Why not take a few minutes from your busy lives to find out what your Auxiliary is doing and, even more important, how your own wife is trying to be a real help-mate in the finest, most modern meaning of that old-fashioned term.

Remember: It is your Auxiliary.

—Mrs. Frederick C. Lowry, Austin.

RECENT DEATHS

DR. LUBA E. ANIGSTEIN

Dr. Luba Esther (Heller) Anigstein, Galveston, Texas, died April 14, 1957. She was born February 14, 1891, in Wolkowysk, Poland (now Russia) and attended Gymnasium at Bialystok, Russia; the University of Berlin, Medical Faculty; and was graduated from the Medical Faculty of the Imperial Russian University at Dorpat, Estonia, 1915. Dr. Anigstein then served during World War I as a physician with the Russian Red Cross until 1918, when she interned and became an assistant in the Department of Pediatrics, University of Warsaw, Poland. Five years later, she began her work as pediatrician for the Ministry of Social Welfare in Warsaw, a position which she held until 1939. After coming to America, Dr. Anigstein passed the required examinations to practice medicine and surgery in New York (1944) and Texas (1948). She also was school physician for the Galveston public schools until 1949, when she opened her private practice, which she maintained until the

DR. LUBA E. ANIGSTEIN

time of her death. Dr. Anigstein completed several postgraduate courses given by the Department of Pediatrics of the University of Texas Medical Branch where she was holding the appointment of assistant in pediatrics.

Dr. Anigstein was a member of the Texas and American Medical Associations through Galveston County Medical Society, the University Women's Club, Alpha Epsilon Iota women's medical sorority, Galveston Art League, Temple B'nai Israel, Council of Jewish Women, Young Women's Christian Association, Rosenberg Library, and Altrusa International, which she served as chairman of the committee on

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

international relations. As hobbies, she enjoyed interior decoration and mathematics.

Dr. Ludwik Anigstein and Dr. Luba Anigstein were married April 16, 1916, in Petrograd, Russia. Dr. Anigstein survives, as do two children, Alice H. Grynbaum, New York; and Robert Anigstein, Chicago; four sisters, Sophie I. Seidenman, New York; Dora Ginsburg, Moscow, Russia; Fanny Fenster, Tel-Aviv, Israel; Anna B. Lazicka-Hermelin, Zabrze, Poland; and three brothers, Joseph Heller, New York; Jacob Heller, Zurich, Switzerland; and Vladimir Heller, Moscow, Russia.

DR. GORDON A. LILLIE

Dr. Gordon Albert Lillie, Baytown, died April 10, 1957, of chronic glomerulonephritis with uremia.

Dr. Lillie was born in Sumner County, Kan., June 13, 1887, son of Albert F. and Gertrude H. Lillie. He attended Texas Christian University, Fort Worth, where he received both academic and medical education, receiving his doctor of medicine degree in 1912. After interning at Buffalo Park Sanitarium and Fort Worth City Hospital, Dr. Lillie practiced briefly in Oklahoma, first in Pawnee and then in Stillwater, before locating in Texas. From 1914 until 1919 he was at Batson; since 1919 he had been in practice in Goose Creek and Baytown. He and Dr. H. H. Duke built the Lillie-Duke Hospital in Baytown in 1936.

A member of the Harris County Medical Society and affiliated organizations, Texas Medical Association, and American Medical Association, Dr. Lillie was first president

DR. GORDON A. LILLIE

of the East Harris County Medical Society. He belonged to Phi Chi fraternity, the Masonic Lodge, and the Presbyterian Church. He was vice-president of the First National Bank of Baytown and a partner in the Newton-Lillie Oil Company before it was sold to another company. During World War I he was a first lieutenant in the Army and during World War II a medical examiner for Selective Service.

Dr. Lillie is survived by his wife, the former Miss Elizabeth Vandervoort of Pawnee, Okla., whom he married April 15, 1914; a son, Dr. Gordon V. Lillie, Odessa; a sister, Miss Garnet Lillie, Pawnee, Okla.; and three grandchildren.

DR. SAMUEL O. LEVIN

Dr. Samuel Orrin Levin, Denison, died in that city on April 6, 1957.

He was born on October 30, 1908, in Quebec, Canada, the son of Oscar and Sonia (Vinocurov) Levin. After receiving his preliminary education in Chicago, he received from the University of Illinois his bachelor of science and his medical degrees, the latter in 1933.

Dr. Levin interned and took his medical residency at Cook County Hospital in Chicago, following that with a surgical residency at Woodlawn Hospital in the same city. He practiced briefly in Amarillo in 1936, then for a year

DR. SAMUEL O. LEVIN

at the Conchas Dam, N. Mex., project. From 1939 until 1957, he was a general practitioner in Denison, serving in the Army Reserve Medical Corps for one year during that period.

He was a member of the Grayson County Medical Society (serving as president in 1945), Texas Medical Association, American Medical Association, and the American Academy of General Practice. He was of the Jewish faith.

In Lubbock, on April 25, 1938, Dr. Levin married Miss Mary Dell Jacobs of Flora, Ill. He is survived by his wife; two children, Lawrence David Levin and Mary Karen Levin, both of Denison; a sister, Mrs. Ida Passin of Culver City, Calif.; and two brothers, Harry and Morris Levin, both of Chicago.

DR. CHARLES N. LaDUE

Dr. Charles Nance LaDue, internist, diagnostician, and cardiologist, died May 1, 1957, in his office in Dallas following a cerebral hemorrhage.

Dr. LaDue was the son of Milton J. and Edna (Nance) LaDue and was born September 15, 1913, in Dallas. After attending Southern Methodist University, Dallas, for two years, he was graduated from the University of Texas, Austin, and went on to the University of Texas Medical Branch, Galveston, to receive his doctor of medicine degree in 1938. Dr. LaDue served an internship at Kansas City General Hospital and a residency at Dallas City-County Hospital.

From 1941 until his death, he was in practice in Dallas with the exception of three and one-half years spent with the Army Medical Corps. He was a major with the Fifty-Sixth Evacuation Hospital (Baylor Unit) in the Mediterranean Theater. He was clinical instructor of internal medicine at Southwestern Medical School of the University of Texas.

A member throughout his career of the Dallas County Medical Society, Texas Medical Association, and American Medical Association, Dr. LaDue was a fellow of the American College of Physicians, a diplomate of the American Board of Internal Medicine, and a member of the Texas

DR. CHARLES N. LaDUE

Club of Internists, Dallas Academy of Internal Medicine, and Dallas Southern Clinical Society. He belonged to the Highland Park Methodist Church.

He is survived by his wife, the former Miss Joyce Standifer; three children, Nancy, Linda, and Jane; two brothers, Milton J. LaDue, Jr. and Jack W. LaDue; and his mother, Mrs. Edna LaDue, all of Dallas.

DR. R. S. WILLIS

Dr. Raymond Shelfer Willis, Dallas surgeon, died April 27, 1957, of a liver ailment.

Son of W. E. and Mary Etta (Wilcox) Willis, Dr. Willis was born August 18, 1903, in Coolidge. He obtained his preliminary education in Dallas, attended North Texas Agricultural College at Arlington and Southern Methodist University at Dallas, and received his medical degree from Baylor University College of Medicine at Dallas in 1933. After serving an internship and a residency in surgery at Baylor Hospital, Dallas, Dr. Willis remained in Dallas to practice. He was president of the East Dallas Hospital and Clinic.

Dr. Willis belonged to the Dallas County Medical Society, Texas Medical Association, American Medical Association, Masonic Lodge, Baptist Church, Lambda Chi Alpha social fraternity, Phi Chi medical fraternity, and Alpha Omega Alpha honorary medical fraternity. During World War II he served four years in the African-European Theater as assistant chief and later, for a few months, chief of surgery for the Fifty-Sixth Evacuation Hospital, holding the rank of major and then lieutenant colonel. Dr. Willis was an able pianist.

Surviving Dr. Willis are his wife, the former Miss Mattie Lou Frye, whom he married February 2, 1935, in Dallas; his mother, Mrs. W. E. Willis, Dallas; and two brothers, Dr. W. Darrell Willis, now a colonel in the Army stationed at Fort Hood, and Curtis E. Willis of Dallas.

DR. EDGAR W. ANDERSON

Dr. Edgar W. Anderson, Conroe, died in a Houston hospital May 11, 1957, having been in semiretirement for about a year.

Born in Hart, Mich., on May 15, 1901, Dr. Anderson was the son of the late Mr. and Mrs. William Anderson. He attended grade and high schools in Scottville, Mich., received bachelor of arts and bachelor of science degrees from the University of Michigan, and received his medical degree from the University of Arkansas in Little Rock in 1928. His internship was served at St. Joseph's Hospital in Houston.

From 1930 until 1934, Dr. Anderson was medical supervisor of the Texas Prison System, headquartered at Huntsville. He joined the staff of the Walker County Hospital in 1934 and remained until 1945, during which time he was also engaging in an independent practice of medicine and surgery at Huntsville.

In 1945 Dr. Anderson moved to Conroe, where he prac-

DR. EDGAR W. ANDERSON

ticed until some months before his death. He was president of the Walker-Madison-Trinity Counties Medical Society in 1932, was later a member of the Montgomery County Society (being president in 1950), and belonged to the Texas, American, and Southern Medical Associations.

Dr. Anderson was very active in community life. In 1940, he was elected mayor of Huntsville, and he was president of the Conroe Independent School Board—on which he served continuously from 1951—at the time of his death. He was a stockholder in both of the Conroe banks, a member of the Chamber of Commerce, the Masonic Order, Conroe Country Club, past president of the Lions Club in

Huntsville, and a stockholder and director of the Conroe Community Hotel. He enjoyed golf, hunting, fishing, and gin rummy as hobbies. He was an Episcopalian.

The physician is survived by his wife, Mrs. Irene Pankhurst Anderson, Conroe; three daughters, Mrs. B. B. Bolton of Edna, Mrs. Jake Posey of Conroe, and Mrs. J. R. Wright of Oceanside, Calif.; one sister, Mrs. Myrtle Parmelee of Muskegan, Mich.; and four grandchildren.

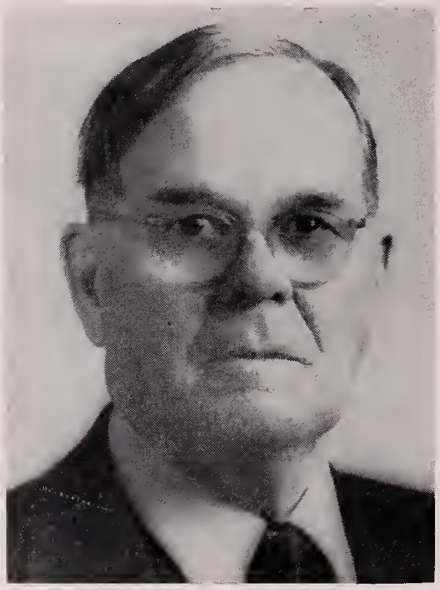
DR. TIM H. PARMLEY

A highway auto accident near Medford, Okla., on April 15, 1957, took the life of Dr. Tim Hennessey Parmley, pioneer Electra physician.

Dr. Parmley was born in Madisonville in 1883. He attended public schools in Portales, N. Mex.; East Texas Teachers College in Commerce; and Memphis Hospital Medical College in Tennessee, from which he received his medical degree in 1912. He interned at Memphis Hospital and then practiced in Electra from 1913 until his death.

A member of the Wichita County Medical Society, which he served as president in 1926, and the American Medical Association, Dr. Parmley was elected to honorary membership in the Texas Medical Association in 1954. He was a member of the First Methodist Church of Electra. Keenly interested in agricultural development, he owned and operated a farm northwest of Electra on which he conducted experiments with range and pasture grasses.

Dr. Parmley married the former Miss Madge Doggett in Memphis in 1913.



DR. TIM H. PARMLEY

He died from shock shortly after the car in which he was riding overturned 5½ miles south of Medford on U. S. Highway 81. Mrs. Parmley, driver of the vehicle, was not injured.

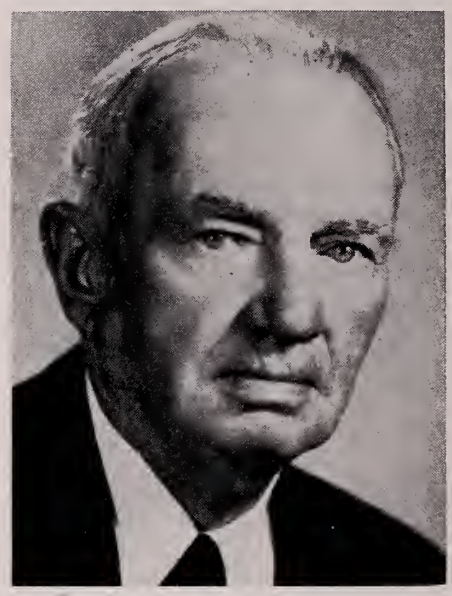
Surviving are his wife; a daughter, Mrs. A. E. Reid, Kerrville; four sons, Dr. Van S. Parmley and Dr. Ray T. Parmley, both of Wichita, Kan., Dr. John B. Parmley of New Orleans, and Ralph Parmley of Mendham, N. J.; two brothers, Dr. L. E. Parmley of Winter Haven, Fla., and B. E. Parmley of Midland; and three sisters, Mrs. Robert Green of Vernon, Mrs. John Caldwell of Madison, and Mrs. Ed Parker of Frederick, Okla.

DR. ARTHUR T. TALLEY

Dr. Arthur Thurman Talley, Kerrville, died in a Houston hospital May 11, 1957. He was president of the Harris County Medical Society in 1939 and a practicing physician in Houston for 36 years.

Dr. Talley was born July 15, 1888, in Brantley, the son of Monroe and Fannie Talley. After attending public schools in Conroe, he studied at Tulane University in New Orleans, where he received his medical degree in 1914. He interned at Southern Pine Lumber Company Hospital in Diboll and did postgraduate work at Tulane and at the University of Pennsylvania.

The physician practiced briefly in Conroe and Diboll before moving to Houston in 1920. He served on the staffs of Methodist, Jefferson Davis, St. Joseph's, and Memorial Hospitals, and was president of the staff of the latter in 1936. He also conducted a private practice in obstetrics and gynecology during his years in that city. In 1956, he moved to Kerrville to join the staff of the Sid Peterson Memorial Hospital.



DR. ARTHUR T. TALLEY

Dr. Talley was a fellow of the American College of Surgeons. His other memberships included the American Medical Association, Texas Medical Association, and Texas Society of Obstetricians and Gynecologists, and he served on nearly every board of the Harris County Medical Society. In 1952, he was elected to honorary membership in the Texas Medical Association, and he transferred his local membership to Kerr-Kendall-Gillespie-Bandera Counties Medical Society last year.

In addition, he was a member of the Methodist Church, Rotary International, Masonic Lodge, Scottish Rite bodies, Shrine, and Knights of Pythias. His hobby was golf.

Dr. Talley's first wife, the former Miss Tommy Robertson, whom he married in Conroe on June 7, 1911, died on March 15, 1954.

He is survived by his wife, Mrs. Murriel Talley of Kerrville; a son, Dr. A. T. Talley, Jr., head of the Department of Obstetrics at Memorial Hospital, Houston; a second son, Monroe R. Talley, Houston; three daughters, Mrs. W. E. Maxwell and Mrs. Buell E. Sweeton, Houston, and Mrs. Walter L. Judd, Richmond, Va.; and a sister, Mrs. Frank Sterrett, Houston.

MEMBERSHIP

TEXAS MEDICAL ASSOCIATION

JULY, 1957

The membership list which follows is compiled from names sent by county society secretaries to the state office. The names are listed by county societies within the fifteen districts. The number after each county listed below indicates the district in which the county is located.

Anderson—11
Andrews—2
Angelina—10
Aransas—6
Archer—13
Armstrong—3
Atascosa—5
Austin—9
Bailey—3
Bandera—5
Bastrop—7
Baylor—13
Bee—6
Bell—12
Bexar—5
Blanco—7
Borden—2
Bosque—12
Bowie—15
Brazoria—8
Brazos—12
Brewster—1
Briscoe—3
Brooks—6
Brown—4
Burleson—9
Burnet—7
Caldwell—7
Calhoun—8
Callahan—13
Cameron—6
Camp—15
Carson—3
Cass—15
Castro—3
Chambers—10
Cherokee—11
Childress—3
Clay—13
Cochran—3
Coke—4
Coleman—4
Collin—14
Collingsworth—3
Colorado—8
Comal—5
Comanche—4
Concho—4
Cooke—14
Coryell—12
Cottle—3
Crane—4
Crockett—4
Crosby—3
Culberson—1
Dallam—3
Dallas—14
Dawson—2
Deaf Smith—3
Delta—14
Denton—14
De Witt—8
Dickens—2
Dimmit—5
Donley—3
Duval—6
Eastland—13
Ector—2
Edwards—5
Ellis—14
El Paso—1
Erath—12
Falls—12
Fannin—14
Fayette—8
Fisher—2
Floyd—3
Foard—3
Fort Bend—8
Franklin—14
Freestone—11
Frio—5
Gaines—2
Galveston—8
Garza—2
Gillespie—5
Glasscock—2
Goliad—8
Gonzales—5
Gray—3
Grayson—14
Gregg—15
Grimes—9
Guadalupe—5
Hale—3
Hall—3
Hamilton—12
Hansford—3
Hardeman—3
Hardin—10
Harris—9
Harrison—15
Hartley—3
Haskell—13
Hays—7
Hemphill—3
Henderson—11
Hidalgo—6
Hill—12
Hockley—3
Hood—12
Hopkins—14
Houston—11
Howard—2
Hudspeth—1
Hunt—14
Hutchinson—3
Irion—4
Jack—13
Jackson—8
Jasper—10
Jeff Davis—1
Jefferson—10
Jim Hogg—6
Jim Wells—6
Johnson—12
Jones—13
Karnes—5
Kaufman—14
Kendall—5
Kenedy—6
Kent—2
Kerr—5
Kimble—4
King—2
Kinney—5
Kleberg—6
Knox—13
Lamar—14
Lamb—3
Lampasas—7
La Salle—5
Lavaca—8
Lee—7
Leon—11
Liberty—10
Limestone—12
Lipscomb—3
Live Oak—6
Llano—7
Loving—1
Lubbock—3
Lynn—2
McCulloch—4
McLennan—12
McMullen—6
Madison—9
Marion—15
Martin—2
Mason—4
Matagorda—8
Maverick—5
Medina—5
Menard—4
Midland—2
Milam—12
Mills—4
Mitchell—2
Montague—13
Montgomery—9
Moore—3
Morris—15
Motley—3
Nacogdoches—10
Navarro—12
Newton—10
Nolan—2
Nueces—6
Ochiltree—3
Oldham—3
Orange—10
Palo Pinto—13
Panola—11
Parker—13
Parmer—3
Pecos—1
Polk—9
Potter—3
Presidio—1
Rains—14
Randall—3
Reagan—4
Real—5
Red River—15
Reeves—1
Refugio—6
Roberts—3
Robertson—12
Rockwall—14
Runnels—4
Rusk—11
Sabine—10
San Augustine—10
San Jacinto—9
San Patricio—6
San Saba—4
Schleicher—4
Scurry—2
Shackelford—13
Shelby—10
Sherman—3
Smith—11
Somervell—12
Starr—6
Stephens—13
Sterling—4
Stonewall—2
Sutton—4
Swisher—3
Tarrant—13
Taylor—13
Terrell—5
Terry—2
Throckmorton—13
Titus—15
Tom Green—4
Travis—7
Trinity—9
Tyler—10
Upshur—15
Upton—4
Uvalde—5
Val Verde—5
Van Zandt—14
Victoria—8
Walker—9
Waller—9
Ward—1
Washington—9
Webb—6
Wharton—8
Wheeler—3
Wichita—13
Wilbarger—13
Willacy—6
Williamson—7
Wilson—5
Winkler—1
Wise—13
Wood—11
Yoakum—2
Young—13
Zapata—6
Zavala—5

(Int.) indicates Intern Membership. (Hon.) indicates Honorary Membership. (Emer.) indicates Membership Emeritus. (Inac.) indicates Inactive Membership. (Mil.) indicates Military Membership.

FIRST DISTRICT

Dr. C. E. Oswalt, Jr., Fort Stockton, Councilor

EL PASO

Alexander, M. L., (Hon.), Canutillo.
Appel, Saul B., 1201 1st Natl. Bldg., El Paso.
Arguelles, F. L., (Hon.),
401 S. Stanton, El Paso.
Autrey, Walter Claude,
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Ayub, Pablo, 4622 Alameda Ave., El Paso.
Baca, Francisco E., 624 Caples Bldg., El Paso.
Barrett, Frank O., 1501 Arizona St., El Paso.
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Bell, Herbert J., 1501 Arizona St., El Paso.
Bennett, J. Travis, 1501 Arizona St., El Paso.
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Bernard, Jack A., 1501 Arizona St., El Paso.
Bernell, Edward C.,
1017 1st Natl. Bldg., El Paso.
Black, Arthur P., 525 Montana St., El Paso.
Black, Gordon L., 1501 Arizona St., El Paso.
Blanco, Victor M., Banner Bldg., El Paso.
Boehler, Clement C., 1501 Arizona St., El Paso.
Bornstein, Frederick P.,
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Boverie, Robert F.,
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Breck, Louis W., 520 Montana St., El Paso.
Britton, Bloyce H., 505 1st Natl. Bldg., El Paso.
Britton, W. W., (Hon.),
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Brunner, George, 1208 Mills Bldg., El Paso.
Budwig, Ira A., 1501 Arizona St., El Paso.
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Campbell, Robert P., (Mil.),
WBAH, El Paso.
Cardwell, Robert J., 414 Banner Bldg., El Paso.
Carnes, David M., 125 River St., Ysleta.
Carpenter, Gray E., 2323 Montana St., El Paso.
Carter, Joe C., 214 Banner Bldg., El Paso.
Casavantes, Luis, 914 N. Stanton St., El Paso.
Caylor, Robert N.,
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Clayton, Ralph S.,
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Cohen, Manley B.,
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Coldwell, William I.,
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Demarest, Harry W., 5532 Bandy Rd., El Paso.
Deter, Russell L., 1501 Arizona St., El Paso.
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Domenicali, Pete, Jr.,
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Don, Rita Louisa, 616 Mills Bldg., El Paso.
Dow, Antonio, 1023 Mills Bldg., El Paso.
Dutton, Loraine O., 616 Mills Bldg., El Paso.
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Epstein, I. M., 525 Montana, El Paso.
Ettl, Edward J., 4950 Montoya Dr., El Paso.
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Evans, Ward, 414 Banner Bldg., El Paso.
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Fernandez, Carlos A.,
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Floyd, Joe R., 1501 Arizona St., El Paso.
Gaddis, Leo R., 1218 Mills Bldg., El Paso.
Gaddis, William R., 1218 Mills Bldg., El Paso.
Gaddy, S. J., 912 N. Mesa Ave., El Paso.
Galatzan, Joe S., 2911 Pershing Dr., El Paso.
Gallagher, Paul, (Hon.),
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Gaspar, Geza, 2705 N. Kansas, El Paso.
Gemoets, Albert A.,
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Gibson, H. M., Jr.,
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Goodloe, B. Lynn,
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Green, Charles L.,
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Green, J. Leighton, 1501 Arizona St., El Paso.
Haan, Robert E., 520 Montana St., El Paso.
Hall, Augustus A., (Mil.),
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Homan, Robert B., Jr.,
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Hornisher, J. J., (Mil.), WBAH, El Paso.
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King, Sam R., 607 El Paso Natl. Bldg., El Paso.
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Leonard, Morton H., (Sec'y).
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Logsdon, Charles P. C.,
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Lorentzen, Wayne L., (Mil.),
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Lukowski, John L., (Mil.),
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Miskimins, J. Harry, Mills Bldg., El Paso.
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Molinar Z, Ramon, 306 S. Stanton, El Paso.
Molloy, Maxwell S., 502 Cincinnati, El Paso.
Morrison, John E., Mills Bldg., El Paso.
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Mutnick, Reuben, 112 S. Concepcion, El Paso.
Nering, A. Robert, 1st Natl. Bldg., El Paso.
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Reynolds, George A., (Mil.), El Paso.
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Rigney, Paul, 821 E. Yandell Blvd., El Paso.
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Rogde, Jacob, 315 Mills Bldg., El Paso.
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Schuster, Frank P., Jr. (Mil.),
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Soto, Raul C., 522 Caples Bldg., El Paso.
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Stanfill, Chas. M.,
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Stevens, B. F. (Hon.), 217 Blacker, El Paso.
Stowe, Jesson L., 2323 Montana St., El Paso.
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Treece, Angus A., Fabens.
Tubbs, William M., 3031 Altura, El Paso.
Turner, George 1501 Arizona St., El Paso.
Unger, Albert H.,
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Vance, James (Hon.),
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Vandevere, William E.,
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Vargas, G. Francisco, 408 S. Stanton, El Paso.
Varner, Harry H., 1501 Arizona, 5E, El Paso.
Verosky, John M., 1501 Arizona St., El Paso.
Villareal, Leopoldo, Caples Bldg., El Paso.
Vinikoff, Maurice R., 318 Mills Bldg, El Paso.
Voigt, Alfred E., 4806 Montana St., El Paso.
Von Briesen, Delphin,
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Walker, Jack A., Jr.,
1501 Arizona St., El Paso.
Walker, Newton F., 1st Natl. Bldg., El Paso.
Webb, Charles E., 1501 Arizona St., El Paso.
Wilcox, Leigh E., 1501 Arizona St., El Paso.
Wollmann, Walter W.,
2001 Grant Ave., El Paso.
Zehm, Abner, (Mil.), Fort Ord, Calif.

PECOS-JEFF DAVIS-PRESIDIO-BREWSTER

Blackwell, James H. (Hon.), Marfa.
Gaddis, Don A., Fort Davis.
Gipson, James F.,
211 N. Nelson, Fort Stockton.
Hill, Malone V., 123 N. Sixth St., Alpine.
Hoffman, George A.,
106 S. Main, Fort Stockton.
Hundley, John C. (Sec'y),
Box 466, Fort Stockton.
Kelley, Wm. N. (Hon.),
P. O. Box 125, Balmorhea.
Lockhart, William E., Jr., Alpine.
Oswalt, Chas E., Jr.,
201 N. Water St., Fort Stockton.
Pate, John W. (Pres.),
803 E. Holland Ave., Alpine.
Raine, M. F., Memorial Hosp., Stanton.
Searls, John P., Marfa.
Sexton, Jack M., 102 N. Persimmon, Sanderson.
Sherrod, Vincent A., Box 608, Iraan.
Sibley, D. J., Jr., Box 367, Fort Stockton.
Stover, Walter H., Marfa.
Wright, Joel E., Box 697, Alpine.

REEVES-WARD-WINKLER-LOVING-CULBERSON-HUDSPETH

Camp, Jim, Pecos.
Gibson, Joseph V., Jr. (Sec'y),
110 N. Poplar, Kermit.
Heath, Joe D., 113 S Mulberry, Kermit.
Kunstadt, Paul, Monahans.
Lindley, Harold, Pecos.
McClure, Wayne H., Kermit.
Munk, Otto, Monahans.
Peddicord, Harper II, 900 Jeffe Dr., Kermit.
Reedy, Jack D., 1703 W. Fourth St., Pecos.
Rehmeyer, Walter O., Monahans.
Roberts, Rufus A., Pecos.
Robinson, Cecil A., Box 487, Kermit.
Robinson, Lila Rose, Box 487, Kermit.
Schmidt, Ed W., Pecos.
Wight, Bennett A. 113 S. Mulberry, Kermit.

SECOND DISTRICT

Dr. Henrie E. Mast, Midland, Councilor

ANDREWS-ECTOR-MIDLAND

Autry, Paul G., 2010 W. Illinois, Midland.
Barganier, John H. (Pres.),
3003 Eastover Dr., Odessa.
Bauman, John E., 413 N. Lincoln Ave., Odessa.
Bobo, Thomas C., 805 West Wall, Midland.
Boone, Martin H., Jr.,
210 North C St., Midland.
Bryan, John N., 1600 N. Texas St., Odessa.
Buck, Roger, 304 North N, Midland.
Bugg, Robert N., 208 N. Garfield, Midland.
Cantrell, David E., 516 W. 4th St., Odessa.
Carson, Willis T., 506 N. Alleghaney, Odessa.
Chapple, James H. (Inac.),
Box 2566, Midland.
Clark, John L., Jr., 1200 N. Texas, Odessa.
Coleman, Jesse L., 210 North C St., Midland.
Colquitt, Landon A. (Int.),
1109 25th St., Galveston.
Cone, Jesse D., 318 N. Alleghaney, Odessa.
Connery, David B., 2006 W. Ohio, Midland.
Craven, John J., 313-B N. Alleghaney, Odessa.
Darwin, Lloyd K., 1600 N. Texas Ave., Odessa.
Dempsey, Edwin B., P. O. Box 1987, Andrews.
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Elliott, Thomas J., Box 1631, Odessa.
Elliott, Vance J., Medical Arts Clinic, Odessa.
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Fulcher, Oliver A., 520 W. 4th St., Odessa.
Furst, William D., 601 W. 4th St., Odessa.
Gaarde, Fred W., 501 Andrews Hwy., Midland.
Garlock, Frederick A.,
Harris Hospital, Fort Worth.
Gomillion, Jesse D., Western Clinic, Midland.
Gooch, J. Oliver, Medical Arts Bldg., Midland.
Grafa, Barney G., Jr., 1806 W. Wall, Midland.
Grammer, John C.,
501 Andrews Hwy., Midland.
Green, Wilbur K., 404 N. Washington, Odessa.
Greenlee, Ralph G., 401 N. Garfield, Midland.
Greenlees, David L., 518 W. 4th St., Odessa.
Grice, Marvin Edward,
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Halden, William J., 2308½ Ohio, Midland.
Hale, Robert A., Box 553, Midland.
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Hays, Alan L., Headlee Clinic, Odessa.
Headlee, Emmet V., Box 3112, Odessa.
Hestand, Haskell E., 421 N. Golder, Odessa.
Holt, William D., 1310 Main, Lubbock.
Horne, Albert M., 2200 W. Illinois, Midland.
Horton, George W., 413 N. Lincoln, Odessa.
Hubbard, Prevost, Jr.,
500 N. Alleghaney, Odessa.
Hunsaker, R. Dale, 2203 W. Illinois, Midland.
Hunt, H. Lynn, Jr., 421 N. Golder, Odessa.
Hunt, Jackie H., 408 N. Washington, Odessa.
Hutcheson, Zenas W., Jr., Box 1987, Andrews.
Johnson, Chester R.,
108 N. Andrews Hwy., Midland.
Johnson, Homer B.,
501 Andrews Hwy., Midland.
Kirk, Earl H., 314 N. Alleghaney, Odessa.
Lang, Garland H., 108 N. Garfield, Midland.
Leggett, L. Waldo, 615 Leggett Bldg., Midland.
Leigh, Henry T., Jr., 911 W. Illinois, Midland.
Lekisch, Kurt, Box 852, Midland.
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Lillie, Gordon V., 1200 N. Texas, Odessa.
Loring, Milton J., 2001 W. Wall St., Midland.
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Madsen, Martha E., 2200 W. Illinois, Midland.
Marinis, Thomas P., 210 N. Garfield, Midland.
Mast, Clarence S. (Int.), Mast Clinic, Midland.
Mast, Henrie E., 2203 W. Illinois, Midland.
Mast, John R., 2203 W. Illinois, Midland.
McAlister, Joseph H. (Sec'y),
313-B Alleghaney, Odessa.
McClure, Glen, 206 North "O", Midland.
McCullough, Edison W.,
1415 N. Big Spring, Midland.
McIntire, Thornton S., 601 W. 4th St., Odessa.
Melton, Thos. June, Jr.,
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Mickle, Edwin R., 2011 West Ohio, Midland.
Mood, George F., 2203 W. Illinois, Midland.
Mullins, Donald H., 1600 N. Texas, Odessa.
Nichols, Myron McCall,
2203 W. Illinois, Midland.
Novak, Theodore W., 413 N. Lincoln, Odessa.
Oehlschlager, F. Keith, 1208 W. 10th, Odessa.
Orr, Marjorie K., 1501 W. Wall Ave., Midland.
Orrahood, Marvin David,
Medical Center Hospital, Odessa.
Parks, Walter S., Jr., 108 N. Garfield, Midland.
Payne, William T., 408 N. Alleghaney, Odessa.
Penn, Rhesa L., Jr., 2003 West Ohio, Midland.
Rader, J. Paul, 313 N. Alleghaney, Odessa.
Rainer, James W., 1200 N. Texas St., Odessa.
Ramsey, Richard R., P. O. Box 1987, Andrews.
Shapira, Jake, 501 Andrews Hwy., Midland.
Thornton, Elbert H. E., 500 N. Dotsy, Odessa.
Tompkins, Harry H., Jr., Box 1987, Andrews.

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2003 W. Big Spring, Midland.
Walton, Jack R., 2011 W. Ohio, Midland.
White, Robert N., 210 North C St., Midland.
Wiesner, William A.,
406 N. Washington, Odessa.
Willeford, Carl A.,
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Williams, Glenn R., 413 N. Lincoln, Odessa.
Wood, John K., 601 W. 4th St., Odessa.
Wood, Murray, Box 1247, Andrews.
Wright, Robert L., 601 West Fourth, Odessa.
Wyvell, Dorothy B., 307 North "M", Midland.
Zang, Louis C., 601 W. 4th St., Odessa.
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BORDEN-DICKENS-GARZA-KENT-KING-SCURRY-STONEWALL

Alexander, Arthur B., Spur.
Battenfield, John Y., 2601 Avenue F, Snyder.
Cockrell, C. Ray, 2612 Avenue R, Snyder.
Dillaha, Carl A., Jr., P. O. Box 1086, Snyder.
Hartley, Thomas F. (Sec'y),
P. O. Box 1086, Snyder.
Jones, Wilton N., 2601 Avenue F, Snyder.
Martin, Edward H., Box 1438, Spur.
Nichols, Pike C. (Hon.), 313 E. Hill St., Spur.
Pierce, Robert B., 2811 Avenue S, Snyder.
Redwine, Harry P., Box 295, Snyder.
Rogers, Edward A., Jr.,
Medical Arts Bldg., Snyder.
Ward, Harry W., Route 3, Box 21-A, Snyder.
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Williams, Pat, 723 N. Carroll, Spur.

DAWSON-LYNN-TERRY-GAINES-YOAKUM

Bailes, Jerry Ray, 112 S. 5th St., Brownfield.
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Black, Douglas B., Box 90, Lamesa.
Daniell, Alfred H., Brownfield.
Dow, Harold D., Seminole.
Frazier, Sam Z., Lamesa.
Greenfield, Keller P., Box 1096, Denver City.
Hill, Wayne C. (Pres.), Brownfield.
Hood, Steve E., Jr.,
Gaines Clinic-Hospital, Seminole.
Johnson, Reinhold E., 1216 E. Hill, Brownfield.
Knox, Cecil B., Jr., Brownfield.
Koberg, Frederick J., Seminole.
Loveless, James C. (Hon.),
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Powers, Ace G., Seagraves Cl.-Hosp., Seagraves.
Price, Noble H., Lamesa.
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Prohl, Emil H., Tahoka.
Puckett, John P., Lamesa.
Rumbo, Noble L., Box D, O'Donnell.
Seale, Francis E., 1008 N. 3rd St., Lamesa.
Sharp, Joseph E., Denver City.
Smith, Alfred H., Lamesa.
Staker, Norman W. (Sec'y), Lamesa.
Thomas, C. Skiles, Tahoka.
Tinley, Robert E., Denver City.
Treadaway, Thomas L., Brownfield.
Watts, Maurice A., Denver City.

HOWARD-MARTIN-GLASSCOCK

Bennett, Marion H., 411 E. 9th St., Big Spring.
Broadrick, Broadway (Pres.),
Drawer 949, Big Spring.
Brohn, Alfred J., P. O. Box 882, Big Spring.
Carson, Arch D., 1500 Gregg, Big Spring.
Conklin, Quinton D., Box 1487, Big Spring.
Cowper, Roscoe B. G., Box 111, Big Spring.
Dillon, George F., 811 Main St., Big Spring.
Fish, John H., Box 1191, Big Spring.
Friedewald, Vincent E.,
811 Main St., Big Spring.
Hall, Granville T., P. B. Box 1191, Big Spring.
Harrison, Preston E.,
Big Spring State Hospital, Big Spring.
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Lurting, Frederick W.,
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Mays, Floyd R., Jr., Box 191, Big Spring.
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Race, Charles G., Jr.,
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Sanders, J. Virgil, Box 191, Big Spring.
Sanders, Nell W., P. O. Box 191, Big Spring.
Sloan, Roy C., State Hosp., Logansport, Ind.
Swift, Edward V., 811 Main St., Big Spring.
Talbot, Milton W., Jr.,
811 Main St., Big Spring.
Thomas, Clyde E., Jr.,
Howard Co. Hosp. Fdn., Big Spring.
Williamson, Thos. J.,
411 E. 9th St., Big Spring.
Wood, G. Hardin, Permian Bldg., Big Spring.
Woodall, Jack M., P. O. Box 991, Big Spring.
Worthy, Louise Bennett (Sec'y),
Drawer 949, Big Spring.

NOLAN-FISHER-MITCHELL

Barker, Frank R., Peters Clinic, Sweetwater.
Callan, Chester U., Rotan.
Chinn, John H., Jr. (Sec'y),
505 Chestnut, Colorado City.
Cowan, W. Kenneth,
505 Chestnut St., Colorado City.
Crymes, J. Melvin, Colorado City.
Fortner, Amos H., Sweetwater.
Hood, Francis T. N., Jr.,
301 Locust, Sweetwater.
Johnson, Bruce H., Loraine.
Johnson, Clark A.,
Young Medical Center, Sweetwater.
Johnson, J. Frank, Rotan.
Lebleu, Bennie, P. O. Box 473, Rotan.
Loeb, Sam A., Sweetwater.
Logsdon, Harry A., Colorado City.
Peavy, J. E., 1215 Norwood, Austin.
Peters, Roland O., Sweetwater.
Price, Robert L., Sweetwater.
Rhode, Oscar E., Colorado City.
Rhode, William S.,
505 Chestnut St., Colorado City.
Richardson, James K.,
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Rudd, Laurence H. (Pres.),
Box 1266, Colorado City.
Supowit, S. F., 500 Oak St., Sweetwater.
Terry, Joseph C., Loraine.
Wilkinson, Robert T., Roby.
Young, James W., 1401 Hailey, Sweetwater.
Young, Tom D., Sweetwater.

THIRD DISTRICT

Dr. Robert A. Neblett, Canyon, Councilor

ARMSTRONG-DONLEY-CHILDRESS-COLLINGSWORTH-HALL-WHEELER

Blackketter, Donald E.,
113 East 2nd St., Shamrock.
Butler, Robert G., Jr.,
2nd & Ave. E, Childress.
Cariker, Fred H., Childress.
Carroll, William A. (Hon.),
1615 Monroe St., Amarillo.
Chaffin, Curtis R.,
206 North Main, Shamrock.
Clark, Robert E., Jr., Box 111, Memphis.
Fox, Grover C., Childress.
Fox, Jack F., 801 Commerce St., Childress.
Gooch, James W., Shamrock.
Goodall, O. R., Memphis.
Holcomb, Carter, Wellington.
Hunt, Thurman A., Memphis.
Jenkins, O. L. (Hon.),
9330 Forest Hills, Dallas.
Jernigan, James H. (Hon.), Childress
Jeter, Perry R. (Hon.), Childress.
Jones, Charles B. (Pres.), Wellington.
Jones, Elmer W. (Hon.),
3415 20th St., Lubbock.
Lester, Joseph K.,
113 East 2nd St., Shamrock.
Nicholson, Harold E., Sr., Wheeler.
Nicholson, Harold E., Jr., Wheeler.
Odom, James A. (Hon.), Box 706, Memphis.
Roberts, Oran M.,
104 East Second, Shamrock.
Smith, George W., Adair Hospital, Clarendon.
Stevenson, Harold R., Memphis.
Townsend, Shell H., Childress.
Walker, Glenn R., Wheeler.
Watkins, Dale V. (Sec'y), Wellington.
Westenburg, Jacobus J., Childress.

DALLAM-HARTLEY-SHERMAN-MOORE

Askins, J. Robert, Jr.,
723 Bliss Ave., Dumas.
Brown, Thomas G., P. O. Box 326, Dumas.
Coventry, William V.,
115 W. 5th St., Dumas.
Cunningham, John H. (Pres.),
201 Texas Blvd., Dalhart.
Elston, Fredrick A., P. O. Box 127, Sunray.
Hull, Ivan W., 201 Texas Blvd., Dalhart.
Meredith, Duane W., 214 E. 5th St., Dumas.
Moore, Victor R., Box 1108, Dalhart.
Pieratt, Karl W., 124 Amherst, Dumas.
Purgason, John R. (Sec'y), Box 535, Dumas.
Reed, Emil P., 101 Beard, Dumas.
Richardson, O. J., 201 Bliss, Dumas.
Wheeler, Jim E., 201 Bliss, Dumas.
Wright, Byron W., 214 E. 5th St., Dumas.
Wright, Norman E. (Int.),
4146 Lemac, Houston.

GRAY-HANSFORD-HEMPHILL-LIPSCOMB-ROBERTS-OCHILTREE-HUTCHINSON-CARSON

Ashby, Charles H.,
1701 N. Hobart St., Pampa.
Baker, Donald B.,
516 W. Kentucky St., Pampa.
Barksdale, William C.,
510 N. Weatherly, Borger.
Beach, Wm W. (Hon.),
2215 E. Yandell Blvd., El Paso.
Bellamy, Russell M.,
Combs Worley Bldg., Pampa.
Bertinot, C. Walter,
300 Hughes Bldg., Pampa.
Brindley, Claunch G.,
1063 Coronado Circle, Borger.
Brothers, Joe F. (Sec'y),
412 S. Main, Borger.
Brown, R. Malcolm (Pres.),
Florida & Hobart, Pampa.
Davis, Jesse J. (Hon.), Higgins.
Donaldson, Joe R., Hughes Bldg., Pampa.
Elder, John F., 600 W. Kentucky, Pampa.
Ellis, Neely Joe,
Combs Worley Bldg., Pampa.
Fabian, Harold F.,
300 Hughes Bldg., Pampa.
Falkenstein, Richard D.,
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Gates, Joseph W., P. O. Box 1421, Pampa.
Gates, Philip A., Box 1421, Pampa.
Hampton, Dan E., 207 S. McGee, Borger.
Hampton, Raymond M.,
M and S Clinic, Pampa.
Hamra, Henry M.,
1008 Megert Shopping Center, Borger.
Hansen, Arthur F., Box 87, Borger.
Hansen, Lawrence C., Box 87, Borger.
High, Clifton E., Box 1701, Pampa.
Hollingsworth, H. W.,
Phillips Med. Center, Phillips.
Holmes, Robert L., Jr.,
Phillips Med. Center, Phillips.
Hrdlicka, George R.,
300 Hughes Bldg., Pampa.
Huff, Oscar (Hon.),
1116 Christine, Pampa.
Ingham, Mahlon E., 500 W. 3rd, Borger.
Johnson, J. Bluford,
Sanford Clinic-Hosp., Perryton.
Jones, W. Calvin, 312 Rose Bldg., Pampa.
Kelley, Frank W., 516 W. Kentucky, Pampa.
Kengle, George L., Perryton.
Key, Julian M., Box 1782, Pampa.
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McDaniel, Macfield, Box 1782, Pampa.
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Morris, Ernest H., Canadian.
Overton, Marvin C., Jr., Hughes Bldg., Pampa.
Pearson, Daniel B., Jr., Perryton.
Prewit, Rex D., 500 W. Third St., Borger.
Sanford, Roy K., Perryton.
Snyder, Edward H. (Hon.), Canadian.
Snyder, Rush A., 405 Main St., Canadian.
Stephens, Milton M., 412 S. Main, Borger.
Stephens, Walton G., 412 Main, Borger.
Vendrell, Felix J., Pampa Clinic, Pampa.
Voet, Henriette H.,
114 W. Grand Ave., Borger.
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HALE-FLOYD-BRISCOE

Benzon, George H., III,
801 West 8th St., Plainview.
Crum, Kenneth O., Lockney.
Davis, Jeff H. (Sec'y),
220 St. Louis, Plainview.
Dils, Grover C., Caliente, Nevada.
Dye, Everette L.,
314 Skaggs Bldg., Plainview.
Dye, Mary R., 312 Skaggs Bldg., Plainview.
Foster, Dee R., Box 245, Hale Center.
Freeman, Ray W., Hale Center.
Hansen, J. Harvey, 801 W. 8th St., Plainview.

Harris, Jack A., Box 226, Petersburg.
Harvis, Herman J., 708 Denver, Plainview.
Heye, Randall G.,
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Hill, Clarence T., Jr.,
801 W. 8th St., Plainview.
Horn, Joe J., 220 St. Louis, Plainview.
Howell, McKinley,
214 Skaggs Bldg., Plainview.
Jackson, Carl C., 706 Denver St., Plainview.
Johnson, Gilmer B., Jr.,
211 Skaggs Bldg., Plainview.
Long, Dorothy C., Skaggs Bldg., Plainview.
Long, John C., 801 W. 8th, Plainview.
Mangold, Wm. J.,
Lockney Gen. Hosp., Lockney.
McCarthy, Eugene C., 220 St. Louis, Plainview.
McClelland, Gene A. (Pres.),
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204 Skaggs Bldg., Plainview.
Moore, Robt. W. (Int).,
424 S. Summit, Fort Worth.
Nichols, E. O., Jr., 215 W. Apline, Plainview.
Nichols, E. O., Sr.,
1402 W. Eleventh, Plainview.
Roberts, Roy R.,
801-813 W. 8th St., Plainview.
Schlecte, Marvin C., 714 W. 7th, Plainview.
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Smith, Landria C.,
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Snyderman, Henry,
Plainview Hospital, Plainview.
Wagner, Gerald W.,
321 Skaggs Bldg., Plainview.
Wayland, Levi C. (Hon.),
Room 3, Skaggs Bldg., Plainview.
Wharram, Kenneth J.,
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Williams, Russell K.,
805 W. 8th St., Plainview.

HARDEMAN-COTTLE-FOARD-MOTLEY

Brooks, Walter A. (Pres.),
404 Mercer St., Quanah.
George, Joseph M., Quanah.
Harmon, Franklin C., Jr., Paducah.
Hughes, John F., Spur.
McDaniel, Robert R., Quanah.
Pate, Clarence C., Paducah.
Powell, Burrell E.,
Chillicothe Clinic, Chillicothe.
Raines, John W., Crowell.
Salkeld, Phil L., Quanah.
Sitta, Raymond E., Chillicothe.
Stanley, James S., Matador.
Taylor, John M. (Sec'y),
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Traweek, Albert C., Matador.
Traweek, Albert C., Jr.,
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LAMB-BAILEY-HOCKLEY-COCHRAN

Barnes, Elbert D.,
1212 Houston St., Levelland.
Brewer, Jesse H., Jr.,
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Brown, Dan M., 210 S. W. 2nd St., Morton.
Campbell, Dale P. (Pres.), Levelland.
Dupre, John D., Levelland.
Edgar, George V.,
1209-B Houston St., Levelland.
Fain, J. Randel,
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Faust, Fredric B., Faust Cl. & Lab., Earth.
Green, Lathaggar, Jr., Box 368, Muleshoe.
Gutekunst, Roscoe A., Dalhart.
Holder, John B., Box 967, Littlefield.
Janes, Fred W., Littlefield.
Maurer, Ralph E.,
500 Littlefield Dr., Littlefield.
Nowlin, William C.,
Littlefield Clinic, Littlefield.
Phillips, Claurice M., Levelland.
Reid, Raymond A. (Sec'y),
Phillips-Dupre Hosp., Levelland.
Renegar, James G., 611 Ave. D, Levelland.
Shotwell, Ira T., Jr., Littlefield.
Stafford, Delmon J.,
401 W. 6th St., Littlefield.
Still, Oscar W., Littlefield.
Walsh, Andrew L., 611 Avenue D, Levelland.

LUBBOCK-CROSBY

Adams, Erie Dell, 1910 Knoxville, Lubbock.
Anderson, William F., 1312 Main St., Lubbock.
Ansley, Leslie R., 2615 19th St., Lubbock.
Arnett, Sam C., Jr., 2609 19th St., Lubbock.
Arnold, Robert N., 1910 Knoxville, Lubbock.
Barsh, Albert G., 2010 Broadway, Lubbock.
Batson, Carey B., 1315 10th St., Lubbock.
Baugh, William L., (Hon.),
1302 Main St., Lubbock.
Birdsong, William F., Muleshoe.
Black, Crawford H., Silverton.
Blake, Emerson M., 1910 Knoxville, Lubbock.
Bronwell, Alvin W., (Sec'y.),
1910 Knoxville, Lubbock.
Canon, Robert T., 1312 Main St., Lubbock.
Carnrick, Millard, Jr.,
701 College Ave., Lubbock.
Carr, Robert L., 2602 Ave. Q., Lubbock.
Cashion, William R., 2010 Broadway, Lubbock.
Chalk, John R., 802 Ave. N., Lubbock.
Chatman, Joseph A., 2303 Cedar, Lubbock.
Clark, Doyce M.,
1910 Knoxville Ave., Lubbock
Clark, Vester V., (Hon.),
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Cobb, John L., 4412 W. 17th St., Lubbock.
Croom, William S., 1910 Knoxville, Lubbock.
Cross, Denzil D., 1312 Main St., Lubbock.
Daniel, Arthur L., 2613 34th St., Lubbock.
Delaney, Robert M., Abernathy.
Donaldson, J. D., Jr., 3213 42nd St., Lubbock.
Douglas, Richard C., 1318 Main St., Lubbock.
Dunn, Jack, Jr., 1910 Knoxville, Lubbock.
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Ellis, Noel A., 2602 Ave. Q, Lubbock.
English, Otis W., 1312 Main St., Lubbock.
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Ewing, Mahon M., 2609 19th St., Lubbock.
Fiel, Charles A., 3701 19th St., Lubbock.
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Gordon, William H., 2022 Broadway, Lubbock.
Hale, Lee E., 802 Ave. N., Lubbock.
Hall, James T., 511 College Ave., Lubbock.
Hancock, Howard R., 2615 19th St., Lubbock.
Hand, Orra Robert, 1910 Knoxville, Lubbock.
Haney, Edward L., Ralls.
Harris, Joseph R., Jr., 1211 Ave., O, Lubbock.
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Healy, Maurice J., 1910 Knoxville, Lubbock.
Hendon, Robert G., Jr.,
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Hull, O. Brandon, 2022 Broadway, Lubbock.
Hunt Ewell L., 1312 Main St., Lubbock.
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Hutchinson, James T., (Hon.),
3505 19th St., Lubbock.
Isham, Asa C., 1910 Knoxville, Lubbock.
Jaynes, Stan H., 825 W. Lubbock St., Slaton.
Jaynes, B. Arthur, 825 W. Lubbock St., Slaton.
Kallina, Frederick P., Tech Infirmary, Lubbock.
Key, Olan, 2609 19th St., Lubbock.
Krueger, Julius T., 1910 Knoxville, Lubbock.
Lane, Ralph, 1312 Main St., Lubbock.
Lewis, Richard Q., 3060 34th St., Lubbock.
Locke, John C., P. O. Box 456, Slaton.
Loveless, J. Elbert, 2425 7th St., Lubbock.
Loveless, Roy G., 2609 19th St., Lubbock.
Lovings, Franklin L., 2612 Hickory, Lubbock.
Lunceford, Tennie Mae,
1301 Broadway, Lubbock.
Malone, Frank B., 2609 19th St., Lubbock.
Mansell, Chris C., 1302 Main St., Lubbock.
Marable, Gerald L., 3414-B Ave., H., Lubbock.
Mantooth, Walter B., Jr.,
2615 19th St., Lubbock.
Mattison, Myron D., 1210 Ave. R., Lubbock.
Mayfield, Ivan G., 1318 Main, Lubbock.
McCarty, Robert H.,
1910 Knoxville Ave., Lubbock.
McClure, Edwin E., 701 College Ave., Lubbock.
McDaniel, Bennie O., Muleshoe.
McSween, M. Jay, Jr., 123 W. Lubbock, Slaton.
Miller, Pauline A., 2609 19th St., Lubbock.
Monk, Norman A., 511 College Dr., Lubbock.
Monte, Melville R., 4111 32nd St., Lubbock.
Moore, Robert, 1211 Ave., O., Lubbock.
Morris, James G., 1312 Main St., Lubbock.
Moss, Charles B., 1318 Main St., Lubbock.
Moss, Ennis E., Methodist Med. Bldg., Lubbock.
Nalle, Ernest, Jr., 1312 Main St., Lubbock.
Nash, Charles H., Jr.,
1910 Knoxville, Lubbock.
O'Loughlin, Richard K.,
1910 Knoxville, Lubbock.
Parker, Thomas G., 1910 Knoxville, Lubbock.
Payne, Clifford E., 2415 6th St., Lubbock.
Payne, Glen B., 250 W. Lubbock, Slaton.
Pennington, Hugh A., 2613 34th St., Lubbock.
Pigford, Charles A., P. O. Box 998, Lubbock.
Poole, Warren B., 3060 34th St., Lubbock.
Porres, Felipe D.,
4408-B Canton Ave., Lubbock.
Ratcliff, Charles E., 1910 Knoxville, Lubbock.
Reinke, R. Thomas, 3615 19th St., Lubbock.
Rhoades, Dale R., Crosbyton.
Riddel, Roy L., Jr., 1318 Main St., Lubbock.
Robinson, Donald E., 2615 19th St., Lubbock.
Rountree, John B., Jr., 2615 19th St., Lubbock.
Ryburn, Frank M., Jr., 1210 Ave. R, Lubbock.
Selby, John H., 1910 Knoxville, Lubbock.
Shaw, Marie L., P. O. Box 1719, Fort Worth.
Shepard, Herbert L., Med. Arts Clinic, Lubbock.
Slemmons, Theodore M., Muleshoe.
Smith, Lynwood B., 1910 Knoxville, Lubbock.
Smith, Roy L., 1910 Knoxville, Lubbock.
Smith, William C., 1910 Knoxville, Lubbock.
Snodgrass, Milo R., Crosbyton.
Snow, Wister C., 3315 39th St., Lubbock.
Spikes, Lowell W., Ralls.
Stewart, Allen T., Jr., 1318 Main St., Lubbock.
Stewart, Allen T., 1318 Main St., Lubbock.
Stiles, James Hooper, 1910 Knoxville, Lubbock.
Storrs, Loyd A., 1910 Knoxville, Lubbock.
Stout, Ruth Louise, 2352 34th St., Lubbock.
Surman, Arnold C., (Hon.), Post.
Talbert, Thomas L., 123 W. Lubbock, Slaton.
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Tubbs, Harry A., Post.
Ullom, William S., 4122 34th St., Lubbock.
Upshaw, Leon R., 1312 Main St., Lubbock.
Wagner, Charles J., (Hon.),
1302 Main St., Lubbock.
Wallace, Grady M., 1647 Broadway, Lubbock.
Warshaw, Harold, (Pres.),
1910 Knoxville, Lubbock.
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Williams, David C., (Hon.), Post.
Woods, Limmie B., 2402 Main St., Lubbock.
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POTTER

Archer, John R., (Sec'y.),
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Aronson, Sam J. R., 1422 Tyler, Amarillo.
Blackwell, Ben T., 705 Fisk Bldg., Amarillo.
Bordelon, Howard M.,
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Budd,Wilbur Q., 1422 Tyler St., Amarillo.
Campbell, William J.
1422 Tyler St., Amarillo.
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Duke, Tom W., 1422 Tyler St., Amarillo.
Duncan, Frank B.,
339 Amarillo Bldg., Amarillo.
Duncan, Robert A.,
339 Amarillo Bldg., Amarillo.
Ellis, J. Victor, 315 Fisk Bldg, Amarillo.
Flamm, Kenneth R.,
205 Amarillo Bldg., Amarillo.
Gallagher, Robert P., (Hon.),
3101 Van Buren, Amarillo.
Garre, Peter R., 1422 Tyler St., Amarillo.
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Hatchett, Capres S.,
213 Amarillo Bldg., Amarillo.
Hegedus, William J.,
2714 W. 10th St., Amarillo.
Hyde, Robert F., 2714 W. 10th St., Amarillo.
Intress, Robert H., 2223 Hughes St., Amarillo.
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Jacobson, Merlin E.,
V. A. Hosp., Wichita, Kansas.
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Johnson, James L., 1422 Tyler St., Amarillo.
Johnson, Jere B., 1501 W. 10th St., Amarillo.
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1413 Lipscomb, Amarillo.

Latson, Harvey H.,
324 Amarillo Bldg., Amarillo.
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2714 West 10th Ave., Amarillo.
Lipscomb, Joe L., 825 W. 7th St., Amarillo.
Lokey, Early B., 719 Austin, Amarillo.
Loving, Dan H., 611 Fisk Bldg., Amarillo.
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Masters, Bert A.,
18th & Washington, Amarillo.
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Naslund, Edward G.,
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Owens, Guy, Amarillo Bldg., Amarillo.
Patton, David M., 703 Harrison St., Amarillo.
Patton, Louis K., 703 Harrison St., Amarillo.
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2714 West 10th Ave., Amarillo.
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Powers, Evelyn G., Fisk Bldg., Amarillo.
Powers, George L., Fisk Bldg., Amarillo.
Price, William T., Jr.,
1422 S. Tyler, Amarillo.
Pronko, Michael J.,
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Puckett, Bascomb M., (Inac.),
205 Amarillo Bldg, Amarillo.
Puckett, Howard E.,
205 Amarillo Bldg., Amarillo.
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Reid, Howard C., 315 Fisk Bldg, Amarillo.
Robberson, Jason H., 1422 S. Tyler, Amarillo.
Robberson, Joe Frank, 1422 S. Tyler, Amarillo.
Rook, Rex L., 719 Austin, Amarillo.
Rowley, Elmer A.,
205 Amarillo Bldg., Amarillo.
Royse, George T., 603 Fisk Bldg., Amarillo.
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Scott, Wilbert E., 706 Monroe St., Amarillo.
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Stout, William W., 703 Harrison, Amarillo.
Streit, August J., Fisk Bldg., Amarillo.
Swindell, Raymon R.,
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1607 Van Buren, Amarillo.
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Winsett, Amos E., 611 Fisk Bldg., Amarillo.
Winsett, E. Merrill, 611 Fisk Bldg., Amarillo.
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Wyatt, James Odis,
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Yeakel, S. Victor, 2400 Line Ave., Amarillo.

RANDALL-DEAF SMITH-PARMER-CASTRO-OLDHAM-SWISHER

Barnett, Lewis B, Box 986, Hereford.
Bischoff, Harold W., P. O. Box 488, Dimmitt.
Boswell, Leta N., (Pres.), Canyon.
Burk, Houston M., 200 N. Austin, Tulia.
Childress, Wm. B., 118 S W 1st St., Tulia.
Cogswell, Ronald E., Dimmitt.
Foreman, Lee S., (Mil.),
1215 S. Phillips, Sioux Falls, S. Dak.
Grubbs, Roy J., Box 352, Hereford.
Jarrett, Robert P., Canyon.
Lawrence, William D., 420 Star, Hereford.
Loyd, Oscar H., (Hon.), Vega.
Mims, Arthur T., Hereford.
Moore, G. Dudley, Jr., (Sec'y.),
Box 35, Canyon.
Neblett, Robert A,
Neblett Hosp. & Cl., Canyon.
Nester, Chas. R., Canyon.
Nobles, Millard W.,
111 N. Knight St., Hereford.
Page, Carl F., Box 188, Dimmitt.
Richards, Fred V., Tulia.
Spence, Joseph W., Jr., Box 188, Dimmitt.
Spring, Floyd Lee, Friona.
Spring, Paul L., Friona.
Stewart, Evans P., Tulia.
Wills, Ralph R., Hereford.

FOURTH DISTRICT

Dr. O. H. Chandler, Ballinger, Councilor

BROWN-COMANCHE-MILLS-SAN SABA

Allen, Homer B., Sr., Box 790, Brownwood.
Benson, William F., (Pres.),
Medical Arts Clinic, Brownwood.
Bullard, Chester C., (Hon.), Brownwood.
Cadenhead, Ernest F.,
2401 Coggin Ave., Brownwood.
Childress, Marvin A., Goldthwaite.
Farley, Frederick W., San Saba.
Felts, Richard C., San Saba.
Galbreath, John C., (Mil.), Brownwood.
Gold, Philip S., (Sec'y), Brownwood.
Gray, Charles W., (Hon.), Comanche.
Hallum, Roy G.,
409 E. Adams St., Brownwood.
Hames, Frederick W.,
1505 Eleventh St., Brownwood.
Hughes, Sidney W.,
Citizens Natl. Bk. Bldg., Brownwood.
Lobstein, Henry L.,
1319 Austin Ave., Brownwood.
Locker, Harry L., Rt. 3, Brownwood.
Locker, S. Braswell, 1501 11th St., Brownwood.
Mayo, Oscar N., Box 790, Brownwood.
McFarlane, Joe R.,
Citizens Bank Bldg., Brownwood.
McGowan, Patrick T.,
Med. Arts Clinic, Brownwood.
Nyvall, Harry O., Smith Mem. Hosp., Gustine.
Ory, Lee K., Comanche.
Pence, Winfield S., San Saba.
Pope, Fielding M.,
501 Citizens Natl. Bk. Bldg., Brownwood.
Snyder, Ned, Jr., Coggin at 12th, Brownwood.
Spencer, Fred D., Jr.,
308 W. Chandler, Brownwood.
Stephens, Joe B., Bangs.
Walker, James B. N., Brownwood.
Wheelis, Paul M.,
Medical Arts Bldg., Brownwood.

COLEMAN

Aston, S. N., (Hon.), Coleman.
Bailey, Robert, (Hon.), Coleman.
Burke, Francis M., 309 S. Pecos, Coleman.
Jennings, William L., Coleman.
Kemper, R. F., (Sec'y),
Coleman Mutual Bldg., Coleman.
Kollwitz, Fred E., 1400 Fae St., Santa Anna.
Lovelady, Roy R., 309 S. Pecos St., Coleman.
Mann, Morris D., (Pres.),
301 W. Pecan, Coleman.
Moody, Charles O., 301 W. Pecan St., Coleman.
Weaver, Manly E.,
Coleman Co. Bk. Bldg., Coleman.
Yarbrough, Cecil G., 315 W. Elm, Coleman.
Young, Josephus C., 205 W. Elm, Coleman.

CRANE-UPTON-REAGAN

Gossett, James D., Rankin.
Maynard, Billy J., Box 1145, Crane.
Nibling, Boyd, Box 1178, McCamey.
Terry, John E., (Sec'y), Box 1145, Crane.
Wright, John L., Jr., (Pres.),
Box 847, Big Lake.

KIMBLE-MASON-MENARD-McCULLOCH

Anderson, James P., Brady.
Anderson, James S., Brady.
Baze, Perry A., (Hon.), Mason.
Bodenhamer, James G., Mason.
Coffey, H. Franklin, Melvin.
Gardner, James H., Jr.,
P. O. Box 125, Menard.
Hallum, B. A., Jr., Brady.
Hanus, Joseph J.,
Austin State Hosp., Austin.
Hartgraves, Hallie, (Hon.),
Kemper Hall, Kenosha, Wisc.
Hays, Aaron R., (Hon.), Brady.
Hays, Robert D., Brady.
Hinchman, Alda W., Brady.
Johnson, Joel H., (Sec'y), Box 426, Mason.
Jordan, Dowdell W., Brady.
Land, Wm. M., (Hon.), Lohn.
McCall, John G., (Hon.), Brady.
McCulloh, Albert M., (Pres.), Brady.
Ricks, Glenn H., Brady.

RUNNELS

Bailey, Charles F., Ballinger.
Chandler, Oren H., Ballinger.
Dixon, James W., (Hon.), Box 30, Winters.
Downing, Lloyd L., Box 494, Ballinger.
Green, John E., Jr., (Pres.), Ballinger.
Jennings, Thomas V., (Hon.), Winters.
McCreight, Henry H., (Sec'y),
Box R, Winters.
Rives, C. T., Winters.
Shiller, John J., Rowena.

TOM GREEN-COKE-CROCKETT-CONCHO-IRION-STERLING-SUTTON-SCHLEICHER

Alexander, Eugene P.,
2021 W. Beauregard, San Angelo.
Allison, Richard F.,
McKnight State San., Sanatorium.
Anderson, Hiram M.,
224 E. Harris, San Angelo.
Anderson, Wilson D.,
123 W. Harris, San Angelo.
Arledge, Robert M.,
203 E. Harris, San Angelo.
Ballard, John E.,
Shannon Mem. Hosp., San Angelo.
Barry, Douglas J.,
115 E. Beauregard, San Angelo.
Bolen, John G.,
Shannon Mem. Hosp., San Angelo.
Boster, Raymond G.,
219 S. Magdalen, San Angelo.
Brask, H. Kermit, 1411 Shafter, San Angelo.
Brauns, Wilhelm H.,
234 W. Beauregard, San Angelo.
Browne, Charles F., Sonora.
Bunyard, Joseph A.,
S. A. Natl. Bk. Bldg., San Angelo.
Burgess, George A.,
McKnight San., Sanatorium.
Butner, Wendell B.,
201 E. Beauregard, San Angelo.
Byars, Perry J. C., Jr.,
19 S. Park St., San Angelo.
Carter, John E., Eden.
Chase, Ralph R., Jr.,
234 W. Beauregard, San Angelo.
Cohen, Milton R., (Mil.),
P. O. Box 53, San Angelo.
Coleman, T. Gabe,
510 W. Beauregard, San Angelo.
Cornelison, Joe L.,
510 W. Beauregard, San Angelo.
Eckhardt, Gus F.,
510 W. Beauregard, San Angelo.
Engelking, Chas. F.,
234 W. Beauregard, San Angelo.
Everhart, Merrill W.,
2704 Douglas Dr., San Angelo.
Finks, Robert M., Clinic Hospital, San Angelo.
Franken, Robert,
408 Chadbourne Bldg., San Angelo.
French, Cecil M., 339 W. Harris, San Angelo.
Gainer, Marthalyn J.,
612 E. Parkway, San Angelo.
Gainer, Sam H., (Pres.),
110 S. Magdalen, San Angelo.
Harris, John R., Bronte.
Harris, Orion W., P. O. Box 483, Sanatorium.
Hayter, Dale W.,
234 W. Beauregard, San Angelo.
Hershberger, Lloyd R.,
22 S. Magdalen, San Angelo.
Hickman, H. E.,
123 E. Beauregard, San Angelo.
Hollister, W. L., (Inac.),
202 E. Ave. J, San Angelo.
Hooker, James W.,
510 W. Beauregard, San Angelo.
Howell, John F., Sonora.
Hunter, Darlene L.,
2719 Live Oak, San Angelo.
Hunter, Thos. R., Jr.,
234 W. Beauregard, San Angelo.
Hutchins, F. Leon,
McBurnett Bldg., San Angelo.
Irvine, Geo. N., Jr.,
510 W. Beauregard, San Angelo.
Johnson, Clay H.,
205 E. Beauregard, San Angelo.
Joiner, Bennett A., 111 E. Harris, San Angelo.
Jones, Robert R.,
2015 W. Beauregard, San Angelo.
Kilman, William J.,
McKnight San., Sanatorium.

Knight, Maynard D.,
234 W. Beauregard, San Angelo.
Kunath, Carl A., 111 E. Harris, San Angelo.
Landy, Aaron E., 14 S. Jefferson, San Angelo.
Lewis, Aubrey L.,
123 E. Beauregard, San Angelo.
Lindsey, William H., (Int.),
335 W. Illinois, Dallas.
Martin, Scott H., 115 S. Park, San Angelo.
McCaw, Blanche M.,
110 S. Magdalen St., San Angelo.
McCaw, William H.,
111 E. Harris, San Angelo.
McDaniel, John D., Robert Lee.
McIntire, Floyd T., Box 1472, San Angelo.
McKnight, Joseph B., (Hon.),
2206 Dallas St., San Angelo.
Mee, Edmond L., 224 E. Harris, San Angelo.
Moon, Roy E., 234 W. Beauregard, San Angelo.
Morse, Robert A.,
234 W. Beauregard, San Angelo.
Mowrey, Jack I., Box 548, Eldorado.
Nesrsta, George L., 111 E. Harris, San Angelo.
Nibling, George W., (Hon.),
1416 W. Harris, San Angelo.
Peyton, Alton B., 224 E. Harris, San Angelo.
Pilmer, Gordon A.,
1401 W. Beauregard, San Angelo.
Porter, William L., 111 E. Harris, San Angelo.
Powers, Rufus L., 203 E. Harris, San Angelo.
Rape, J. Marvin, 22 S. Magdalen, San Angelo.
Read, John L.,
2017 W. Beauregard, San Angelo.
Reilly, Daniel R., City Hall, San Angelo.
Ricci, Henry N., 602 S. Abe, San Angelo.
Round, Harry F., 201 E. Harris, San Angelo.
Round, Kye B., 201 E. Harris, San Angelo.
Rush, Clyde E., 19 S. Park, San Angelo.
Schulkey, William E.,
1221 S. Madison, San Angelo.
Schulze, Victor E.,
219 S. Magdalen, San Angelo.
Sessums, J. Valton,
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Sessums, John R., (Hon.),
1324 W. Ave. D, San Angelo.
Simon, Ralph E., Jr., Box 818, Ozona.
Smith, W. Lacey, 111 E. Harris, San Angelo.
Spencer, Francis M., (Sec'y),
111 E. Harris Ave., San Angelo.
Swann, William J., Sterling City.
Tandy, Hugh B., Ozona.
Tester, Lewis K., Central Natl. Bk., San Angelo.
Thompson, Chase S.,
111 E. Harris, San Angelo.
Trotter, Raleigh F.,
9 S. Magdalen, San Angelo.
Wall, D. D., 234 W. Beauregard, San Angelo.
White, James N., 206 E. Harris, San Angelo.
Williams, Harvey M.,
1401 W. Beauregard, San Angelo.
Windham, Robert E., (Hon.),
Christoval Rd., San Angelo.
Winkelmann, Eugene C.,
1606 W. Beauregard, San Angelo.
Wisely, John S., State TB Hosp., Sanatorium.
Womack, Clifford T.,
401 Central Natl., San Angelo.
Womack, William T., (Mil.),
7306 Gerris, S.E., Albuquerque, N. M.
Wood, Marion L., 224 E. Harris, San Angelo.

FIFTH DISTRICT

Dr. Robert F. Gossett, San Antonio, Councilor

ATASCOSA

Austin, John D., (Sec'y), Pleasanton.
Day, Ancie Fred, Jr., P. O. Box 357, Runge.
Faggard, John M., Poteet.
Joyce, Walter H., Lytle.
Logan, Ben Merl, Box 306, Jourdanton.
Mann, Robert E., P. O. Box 538, Pleasanton.
Morron, Clyde R., George West.
Ogden, U. B., (Pres.), Box 568, Pleasanton.
Parker, Milton F., P. O. Box 306, Jourdanton.
Ward, Jeremiah, (Hon.), Poteet.
Ware, Thomas P., (Hon.), Poteet.

BEXAR

Adelman, Jack A.,
505 Moore Bldg., San Antonio.
Aderhold, James P.,
1116 Med. Arts Bldg., San Antonio.
Adler, Harry F.,
274 W. Ware Blvd., San Antonio.
Adlof, Carolyn M., (Int.),
Baylor Univ. Hosp., Dallas.
Albert, Arnold, 2714 S. Presa St., San Antonio.
Albert, Monroe, 2714 S. Presa St., San Antonio.
Alexander, Charles B.,
1716 Nix Prof. Bldg., San Antonio.
Allen, Sovern W.,
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Allin, Frederick A., (Hon.),
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Allin, Willis W.,
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Altgelt, Daniel D.,
219 W. Gramercy, San Antonio.
Altgelt, James E.,
1018 S. Texas Bldg., San Antonio.
Alvelais, Guillermo R.,
318 N. Santa Rosa, San Antonio.
Alvis, Milton E.,
422 Med. Arts Bldg., San Antonio.
Arendt, Erich J.,
412 W. Mistletoe, San Antonio.
Atkinson, Basil E., Jr., (Int.),
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Atkinson, Donald T.,
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Atmar, Robert C.,
205 Camden St., San Antonio.
Barnett, John L.,
1206 Nix Prof. Bldg., San Antonio.
Baros, James A., 807 Gibbs Bldg., San Antonio.
Barton, Julian C.,
909 Nix Prof. Bldg., San Antonio.
Bates, Leroy E.,
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Bates, Leroy E., Jr., (Int.),
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Beach, Asa, 205 Camden St., San Antonio.
Beal, Albert R., (Dead),
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Beck, Emma, (Inac.), Fredericksburg.
Bellinger, Ruth Ann,
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Bennett, Eaton W.,
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Berchelmann, August G.,
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Berchelmann, David A.,
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Bernard, George E.,
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Berry, Joe H., 516 Lexington, San Antonio.
Berry, Lloyd E., Jr., 605 Belknap, San Antonio.
Biggar, James H., (Hon.),
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Bishop, Elmer W.,
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Blair, James R., Jr.,
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Block, William J.,
1111 Nix Prof. Bldg., San Antonio.
Bloom, Bernard H.,
629 Moore Bldg., San Antonio.
Blumer, Max A.,
3886 Beechwood Dr., Philadelphia, Pa.
Boccelato, Salvador L.,
3304 W. Commerce, San Antonio.
Boehs, Charles J.,
1119 Med. Arts Bldg., San Antonio.
Bobmfalk, John H.,
227 E. Hildebrand, San Antonio.
Bondurant, William W., Jr.,
811 Nix Prof. Bldg., San Antonio.
Bonnet, Edith M.,
228 Med. Arts Bldg., San Antonio.
Borsheim, Raymond S.,
1702 Nix Prof. Bldg., San Antonio.
Bosshardt, Carl E., 145 Hillview, San Antonio.
Botkin, Rolan R., 3721 S. Presa, San Antonio.
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Strozier, William E.,
414 Navarro St., San Antonio.
Sullivan, Thomas P.,
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Surber, Maxine J.
114 General Krueger, San Antonio.
Sutton, Robert S. Jr.,
711 W. Kirk, San Antonio.
Sutton, Robert S. Sr.,
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Birt, John B., Harper.
Brandenstein, Luise C., Kerrville.
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Day, Harold C., 31 Main St., Boerne.
Drane, Hugh A. Jr., Kerrville.
Dyer, Edward L., Kerrville.
Eley, Julia S. (Sec'y), Kerrville.
Feller, Lorence W., Fredericksburg.
Gallatin, Herbert H., (Hon.), Kerrville.
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Knapp, Dwight R.,
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Bandera Hosp. Bldg., Bandera.
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Lindley, Calvin D. (Hon.), Carrizo Springs.
McKinley, Robert L. (Mil.), Pearsall.
Myers, Clyde P., Cotulla.
O'Connor, Timothy D., Pearsall.
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Crossley, S. W. (Hon.), Del Rio.
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Dimmitt, Dean P., Uvalde.
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Poindexter, Cary A., Crystal City.
Pratt, Frank H., Rocksprings.
Rankin, Richard C. Jr.,
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Rodriguez, Simon, Del Rio.
Samsel, Theodore B. Jr. (Sec'y),
217 N. 1st Ave., Crystal City.
Spencer, John C., 212 Maverick, Crystal City.
Wurzbach, Fay, Castroville.

SIXTH DISTRICT

Dr. F. W. Yeager, Corpus Christi, Councilor

BEE-LIVE OAK-McMULLEN

Edmondson, John W.,
908 N. St Marys, Beeville.
Kirkland, Luman W.,
310 N. St Marys, Beeville.
Lancaster, Howard E., (Sec'y.),
Box 559, Beeville.
McNeill, Scott E., Beeville.
Miller, Ernest E., Beeville.
Muecke, Elmo W., Three Rivers.
Poff, Claude M., (Inac.), Tuleta.
Reagan, James L., (Pres.),
310 N. Washington, Beeville.
Reagan, John W., 908 N. St Marys, Beeville.
Reagan, Tom B., Beeville.
Sansom, George W., George West.

BROOKS-DUVAL-JIM WELLS

Albert, Richard O., (Sec'y.),
64 N. Wright St., Alice.
Allison, Albert M., 1031 E. Main St., Alice.
Buck, Haldor R., Premont.
Davis, Glenn B., Box 576, Falfurrias.
Glendenning, F. C., Hebbronville.
Gonzalez, Juan C., Benavides.
Haag, Edmund L., Jr., Freer.
Hocott, Joseph F., Freer.
Howard, Glenn T., Box 1277, Alice.
Joseph, Philip S., Alice.
Moet, John Allen, Orange Grove.
Moore, Victor, Premont.
Newkirk, William H., 1031 E. Main St., Alice.
O'Neil, Andrew W., Falfurrias.
Penly, Richard S., Falfurrias.
Riddle, Riley N., 70 N Wright St., Alice.
Virgin, Edwin P., 501 N. Reynolds, Alice.
Wallace, Virgle W.,
318 N. Jackson, San Angelo.
Wilder, Lowell E., Falfurrias.
Williams, J. Harold, (Pres.), Alice.
Wyche, Geo. G., Jr., 310 N. Wright St., Alice.
Wyche, Geo. G., Sr., 310 N. Wright St., Alice.

CAMERON-WILLACY

Allen, George Earl, (Mil.), Harlingen.
Amidon, Vivien M.,
McKelvey Bldg., Harlingen.
Ashcraft, E. Jeff., Jr.,
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Atchison, Martin V.,
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Breyer, Amy, 105 W. Elizabeth, Brownsville.
Brown, John F., Jr.,
315 N. Sam Houston, San Benito.
Caldeira, Frederick D.,
113 W. Van Buren, Harlingen.
Calderoni, Francisco F.,
37 W. Elizabeth, Brownsville.
Cannon, George M.,
48 W. Levee St., Brownsville.
Carranza, Enrique M., Brownsville.
Casey, James D.,
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Cash, Clarence M., (Hon.),
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Chase, Ned B., Jr., (Mil.), San Benito.
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Kruisheer, H. E. J., Harlingen.
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Lamm, Annie T., La Feria.
Lamm, Heinrich, La Feria.
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KLEBERG-KENEDY

Barnett, Lawrence M., Bishop.
Boyd, Newell D.,
227 W. Kleberg St., Kingsville.
Dunn, S. Chester, 831 Alexander, Kingsville.
Ewert, William A.,
704 E. Ceasar St., Kingsville.
Gaston, Earl, 722 E. Ragland St., Kingsville.
Ginther, Clarke E., Bishop.
Grief, Emmett W..
613 E. Ragland St., Kingsville.
Higgins, Frank B.,
230 W. Yoakum St., Kingsville.
Jones, A. C., 730 W. Lee St., Kingsville.
Lambeth, Charles B. (Sec'y),
1202 Circle Dr., S., Kingsville.
Peace, Dewey W., Bishop.
Peace, Dewey W., Jr., Bishop.
Ramey, Lindell E., Box 431, Kingsville.
Ruchelman, Hyman H.,
121 N. 7th St., Kingsville.
Scales, James R.,
227 W. Kleberg St., Kingsville.
Sublett, Collier M. (Pres.),
723 W. Lee St., Kingsville.
Walling, Bert H., Jr.,
227 W. Kleberg St., Kingsville.
Wiles, William T. (Hon.), Riviera.

NUECES

Abbey, Joseph A.,
2451 Morgan, Corpus Christi.
Ahern, Gerald S.,
1017 Santa Fe, Corpus Christi.
Alsop, Joseph F.,
237 Med.-Dental Bldg., Corpus Christi.
Anderson, William E.,
1001 Louisiana, Corpus Christi.
Appel, Myron H.,
1200 Santa Fe, Corpus Christi.
Arnim, Landon C.,
2424 Morgan, Corpus Christi.
Ashmore, Alvin J.,
225 Med.-Dental Bldg., Corpus Christi.
Barnard, James L. (Pres.),
1240 3rd St., Corpus Christi.
Barnard, Wm. C.,
1240 3rd St., Corpus Christi.
Barnes, George B.,
2400 Morgan Ave., Corpus Christi.
Bernwanger, Damon C.,
2935 Norton, Corpus Christi.
Bickley, Estill T., 2524 Morgan, Corpus Christi.
Blaine, Alva L., 2466 Morgan, Corpus Christi.
Blaine, Mose H., Jr.,
2466 Morgan, Corpus Christi.
Blair, John V.,
308 Wilson Bldg., Corpus Christi.
Bounds, Lloyd D.,
15 Med. Center, Corpus Christi.
Brown, Walter C.,
1733 S. Brownlee Blvd., Corpus Christi.
Bryson, J. Gordon, Jr.,
1209 Santa Fe, Corpus Christi.
Burns, Herbert V.,
1326 Santa Fe, Corpus Christi.
Cameron, Ralph H., Jr.,
2433 Morgan, Corpus Christi.
Carlson, O. Sherman,
1755 Santa Fe, Corpus Christi.
Carr, Robert H., 527 Gordon, Corpus Christi.
Chriss, John W..
2436 Morgan St., Corpus Christi.
Clark, Chas. S.,
233 Med.-Dental Bldg., Corpus Christi.
Clark, Dan H., 1001 Louisiana, Corpus Christi.
Cline, William B., Jr.,
2471 Morgan, Corpus Christi.
Coleman, Sherman T.,
1001 Louisiana, Corpus Christi.
Collins, C. B. (Hon.),
338 Louise, Corpus Christi.
Colyer, George E.,
1001 Louisiana, Corpus Chritsi.
Concklin, Charles L.,
P. O. Box 3475, Corpus Christi.
Conolly, Sidney M.,
1300 3rd St., Corpus Christi.
Crain, Carroll F.,
1214 Santa Fe, Corpus Christi.
Danford, Edwin A., 712 Booty, Corpus Christi.
Davis, Walter T.,
517 Clifford St., Corpus Christi.
Delaney, John J.,
1546 S. Brownlee, Corpus Christi.
Dixon, Chalmer D.,
205 Wilson Bldg., Corpus Christi.
Dolch, Stanley F. N., Jr.,
4206 Ayers St., Corpus Christi.
Draper, Leonidas M.,
207 Wilson Bldg., Corpus Christi.
Eberle, Howard J.,
202 Med.-Dental Bldg., Corpus Christi.
Eckhardt, Kleberg,
3832 Denver, Corpus Christi.
Edwards, Thos. W.,
244 Oleander St., Corpus Christi.
Ellis, Frank A. (Inac.),
611 Blucher, Corpus Christi.
Etheridge, John M.,
1611 Fifth St., Corpus Christi.
Feerer, Donald J., 521 Clifford, Corpus Christi.
Fitzgerald, Thomas F.,
1001 Louisiana, Corpus Christi.
Frank, Thelma E.,
129 Rainbow Lane, Corpus Christi.
Fraser, David B., 1611 5th St., Corpus Christi.
Frich, Michael C.,
525 Everhart Rd., Corpus Christi.
Friedman, Bernard B.,
916 Jones Bldg., Corpus Christi.
Furman, McIver, Furman Bldg., Corpus Christi.
Gabbard, James G.,
1001 Louisiana, Corpus Christi.
Gaddis, Herman W.,
Gonzales Warm Springs Foun., Gonzales.
Garcia, Clotilde P.,
3838 Baldwin St., Corpus Christi.
Garcia, Hector P.,
3024 Morgan, Corpus Christi.
Garcia, Jose A., 1101 19th St., Corpus Christi.
Gardner, Joseph E.,
1214 Santa Fe, Corpus Christi.
Garrett, Leslie M.,
2850 Topeka, Corpus Christi.
Gentry, William H. (Hon.),
1726 Second St., Corpus Christi.
Ghormley, William C.,
615 Oliver Courts, Corpus Christi.
Giles, E. Jackson, 2442 Morgan, Corpus Christi.
Gill, E. King, 2414 Morgan, Corpus Christi.
Glanz, Sanford, 2435 Morgan, Corpus Christi.
Goodman, Paul H.,
1214 Santa Fe, Corpus Christi.
Gray, Paul M., 2420 Morgan, Corpus Christi.
Griffin, Harold E.,
308 Med. Arts Bldg., Corpus Christi.
Groner, Edwin Ben,
533 Gordon, Corpus Christi.
Grossman, Bernard B.,
1001 Louisiana, Corpus Christi.
Grossman, David N.,
Commerce Bldg., Corpus Christi.
Grossman, Maurice S.,
2425 Morgan, Corpus Christi.
Grossman, Saul, 2530 Morgan, Corpus Christi.
Guttman, L. Paul,
1626 10th St., Corpus Christi.
Guttman, Paul B.,
1626 10th St., Corpus Christi.
Gwin, H. Shannon B.,
407 Med. Arts Bldg., Corpus Christi.
Hamilton, Doyne B., Robstown.
Hartwick, Fred W.,
1222 S. Staples, Corpus Christi.
Haynes, Henry M., Jr.,
2418 Morgan, Corpus Christi.
Heaney, H. Gordon,
1300 3rd St., Corpus Christi.
Heaney, Kathryn,
2709 Swantner, Corpus Christi.
Heymann, Hans E.,
2709 Swantner Dr., Corpus Christi.
Hoffpauir, Alvin C.,
Med. Prof. Bldg., Corpus Christi.
Holt, Everett L.,
3840 Lexington, Corpus Christi.
House, Rex C., 2455 Morgan, Corpus Christi.
Howze, Jo W. (Mil.), Robstown.
Hubler, Winthrope R.,
1510 S. Brownlee, Corpus Christi.
Hudson, George C.,
1630 S. Brownlee, Corpus Christi.
Hudson, Richard L.,
531 Gordon, Corpus Christi.
Hyder, Prentiss L.,
2429 Morgan St., Corpus Christi.
Janssen, L. W. O., Jr.,
2444 Morgan, Corpus Christi.
Jasperson, Clarence P.,
1326 Santa Fe, Corpus Christi.
Jimenez, Prospero, Jr.,
2554 Morgan, Corpus Christi.
Johnson, Robert W.,
1209 Santa Fe, Corpus Christi.
Jones, John M., 2514 Morgan, Corpus Christi.
Juarez, Reyna Guillermo,
2731 Morgan St., Corpus Christi.
Kendrick, Michael C.,
2437 Morgan, Corpus Christi.
Kennedy, Hugh A.,
204 Med.-Dental Bldg., Corpus Christi.
Kiel, Alois F.,
1630 S. Brownlee, Corpus Christi.
Klotz, Joseph G.,
2416 Morgan, Corpus Christi.
Knapp, Roger S., 621 Ohio St., Corpus Christi.
Koepsel, Orlando S.,
2454 Morgan Ave., Corpus Christi.
Kohlhaas, John K.,
417 Miramar Place, Corpus Christi.
Kurzner, Meyer, 712 Booty, Corpus Christi.
Landesman, Joseph D.,
1234 3rd St., Corpus Christi.

Lane, Alfred L.,
1001 Louisiana, Corpus Christi.
Lang, Rudolph R.,
1001 Louisiana, Corpus Christi.
Lemke, Walter M.,
2522 Morgan, Corpus Christi.
Lingenfelder, John (Sec'y),
1920 S. Staples, Corpus Christi.
Little, C. R., 1001 Louisiana, Corpus Christi.
Maloney, Vance J., Jr.,
2422 Morgan St., Corpus Christi.
Mann, Nathan,
1806 S. Alameda, Corpus Christi.
Marler, Otis E.,
3216 Reid Drive, Corpus Christi.
Martin, Sterling B.,
1713 S. Brownlee, Corpus Christi.
McKemie, Jack F., 527 Gordon, Corpus Christi.
McKenzie, Charles E.,
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Mella, Charles A.,
3216 Reid Dr., Corpus Christi.
Moller, G. Turner,
602 Commerce Bldg., Corpus Christi.
Moody, Foy H., 1611 Fifth St., Corpus Christi.
Moon, Orville B., Jr.,
225 Med.-Dental Bldg., Corpus Christi.
Moran, J. Patrick,
209 Med.-Dental Bldg., Corpus Christi.
Morgan, Chas. G., Jr.,
156 Santa Barbara, Corpus Christi.
Morphew, Raymond L.,
1001 Louisiana, Corpus Christi.
Morris, William E.,
1546 S. Brownlee, Corpus Christi.
Nast, Jerome, 1126 Third St., Corpus Christi.
Nast, Maurice D., 1126 3rd St., Corpus Christi.
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Oglesby, Paul C. (Mil.), Corpus Christi.
Oshman, Joseph, 1010 Ohio, Corpus Christi.
Padilla, Arthur.
415 Commerce Bldg., Corpus Christi.
Pasternack, Joseph G.,
1001 Louisiana St., Corpus Christi.
Perkins, Maury J.,
2415 Morgan Ave., Corpus Christi.
Phelps, Travis B.,
1546 S. Brownlee, Corpus Christi.
Pilcher, John F.,
P. O. Box 5416, Corpus Christi.
Posner, Sidney, Robstown.
Powell, Sam M., 301 Palermo, Corpus Christi.
Priday, Cedric, 934 Ayers, Corpus Christi.
Pruessner, Harold T.,
3840 Lexington Blvd., Corpus Christi.
Ray, Richard H., 3727 Lincoln, Corpus Christi.
Reeve, John D. (Mil.), Corpus Christi.
Reeves, Gerald A.,
1546 S. Brownlee, Corpus Christi.
Reilly, William D.,
1238 Fifth St., Corpus Christi.
Riley, James R., 2400 Morgan, Corpus Christi.
Riley, Winston E.,
2400 Morgan, Corpus Christi.
Rinehart, Archie B.,
913 S. Port, Corpus Christi.
Rogers, Frederick F.,
1001 Louisiana, Corpus Christi.
Roosth, Hyman P.,
2421 Morgan, Corpus Christi.
Rosenheim, Philipp,
2472 Morgan, Corpus Christi.
Russo, G. Martin,
2512 Med. Center, Corpus Christi.
Schuster, George, III,
2427 Morgan, Corpus Christi.
Segrest, John B.,
3218 Olson Drive, Corpus Christi.
Sharp, James C., 2456 Morgan, Corpus Christi.
Shields, William A., Jr.,
2709 Swantner Dr., Corpus Christi.
Sierra, Ernesto, 2735 Morgan, Corpus Christi.
Sigler, Robert J.,
P. O. Box 5212, Corpus Christi.
Sisson, James H., 2465 Morgan, Corpus Christi.
Slabaugh, Carlyle B.,
1733 S. Brownlee, Corpus Christi.
Sloan, John J., 2432 Morgan, Corpus Christi.
Sloan, Joseph M.,
P. O. Box 6038, Corpus Christi.
Smith, Youel C., Jr.,
1001 Louisiana, Corpus Christi.
Smith, Youel C., Sr.,
1630 S. Brownlee, Corpus Christi.
Sory, Crysup,
1546 S. Brownlee, Corpus Christi.
Spann, R. Gayle,
1546 Brownlee, Corpus Christi.
St. John, Ralph V.,
1001 Louisiana, Corpus Christi.
Stephen, J. J., P. O. Box 231, Robstown.
Stewart, Chas. D.,
1001 Louisiana, Corpus Christi.
Stone, Belo, Robstown.
Stroud, S. K.,
Med.-Dental Bldg., Corpus Christi.
Swearingen, Robert G.,
1002 Ohio St., Corpus Christi.
Tabler, J. Walton,
1002 Ohio St., Corpus Christi.
Talley, Oran H.,
3701 S. Saxet Dr., Corpus Christi.
Thomas, James H.,
1546 S. Brownlee, Corpus Christi.
Thomas, John R. (Inac.),
702 Morgan, Corpus Christi.
Thomas, Rex E.,
1546 S. Brownlee, Corpus Christi.
Thomason, Elizabeth C.,
3364 Manitou, Corpus Christi.
Thomason, Robert H.,
2467 Morgan St., Corpus Christi.
Thompson, Lawrence L.,
1001 Louisiana Blvd., Corpus Christi.
Triplett, William C.,
234 Med.-Dental Bldg., Corpus Christi.
Tyree, James I.,
1209 Santa Fe, Corpus Christi.
Upshaw, Bette Y. (Inac.),
430 Catalina, Corpus Christi.
Upshaw, Jackson E.,
1017 Santa Fe, Corpus Christi.
Ware, Stephen H., Jr.,
908 Ayers, Corpus Christi.
Watson, Clyde O.,
616 Jones Bldg., Corpus Christi.
Wetegrove, John F.,
2514 Morgan St., Corpus Christi.
White, Hosea A. (Inac.),
412 King St., Corpus Christi.
Wilkens, Robert, 2473 Morgan, Corpus Christi.
Williams, Minor L. (Hon.), Robstown.
Williams, Stephen A.,
319 Furman Bldg., Corpus Christi.
Williford, E. Allan,
1546 S. Brownlee, Corpus Christi.
Wood, Robert C.,
1401 Santa Fe, Corpus Christi.
Woods, Haddon B.,
1335 Third St., Corpus Christi.
Woods, Helen H.,
2526 Med. Center, Corpus Christi.
Woods, Richard R.,
2526 Med. Center, Corpus Christi.
Woody, Hannah B.,
515 Elizabeth, Corpus Christi.
Woody, Norman C.,
515 Elizabeth, Corpus Christi.
Wright, L. David,
1546 S. Brownlee, Corpus Christi.
Yates, June, Med. Prof. Bldg., Corpus Christi.
Yeager, Charles P.,
408 Wilson Bldg., Corpus Christi.
Yeager, Franklin W.,
408 Wilson Bldg., Corpus Christi.
York, Thomas L., 4206 Ayers, Corpus Christi.
Zinke, Erhardt, 509 South Port, Corpus Christi.

SAN PATRICIO-ARANSAS-REFUGIO

Baen, Daniel R., Mathis.
Connolly, John V., Ingleside.
Curlee, Curtis L., Sinton.
Deitch, Ernest R., 505 W. Market, Sinton.
Elliott, Boyce, Aransas Pass.
Ewing, F. Stanley (Sec'y), Sinton.
Finn, John H., Refugio.
Guynes, William A., Mathis.
Heard, Richard H., Zarsky Bldg., Refugio.
Horine, Maurice S., Thompson Bldg., Ingleside.
Jenkins, Young S., Taft.
Koontz, Arch C., Woodsboro.
McConchie, Richard D., Aransas Pass.
Meitzen, Travis C., Refugio.
Miller, Harry A., Refugio.
Pierce, James L., Jr., Box 271, Sinton.
Rittiman, Melross C. (Pres.),
Ewing Mem. Hosp., Sinton.
Selby, Claude A., P. O. Box 876, Sinton.
Shelton, Josephine A., Refugio.
Simpson, Charles H.,
501 W. Market St., Sinton.
Tasch, A. F., Taft.
Tunnell, John W., Taft.
Tunnell, Rose N., Taft.
Voss, Alpheus H., Odem.
Wood, Lloyd G., Rockport.
Zarsky, Emil P., Refugio.

WEBB-ZAPATA-JIM HOGG

Baker, Julia M., Campos Eliseos 15,
Mexico City 5, D. F., Mex.
Campbell, Calvin D.,
Physicians & Surgeons Cl., Corsicana.
Canales, Gregorio M.,
7058 Vernon Ave., University City, Mo.
Canseco, Francisco M.,
Sames Moore Bldg., Laredo.
Casillas-Aguayo, Luis,
913 S. Port Ave., Corpus Christi.
Chapa-Badillo, Jesus,
216 Matamoros St., Laredo.
Cigarroa, J. G., Jr., 708 Matamoros, Laredo.
Cigarroa, J. Gonzalez, 708 Matamoros, Laredo.
Cigarroa, L. Gonzalez (Sec'y),
806 Matamoros, Laredo.
Cigarroa, Margaret G.,
Sames Moore Bldg., Laredo.
Cook, Albert T. (Hon.), Zapata.
Crawford, James L. (Hon.),
1701 Rosario St., Laredo.
De La Garza, Raul, Sames Moore Bldg., Laredo.
Emerson, William J., Mercy Hospital, Laredo.
Fuller, Martin L. (Hon.), 435 Sayles, Abilene.
Graham, Stephen H., Jr.,
M. and S. Clinic, Laredo.
Guerra, M. Barrera, Hebbronville.
King, Albert C., 801 Matamoros, Laredo.
Longoria, Enrique M.,
Sames Moore Bldg., Laredo.
Lowry, John T., Lowry Clinic, Laredo.
Lowry, Ruby S., Sames-Moore Bldg., Laredo.
Malakoff, Morris E., 806 Matamoros, Laredo.
Mata, Juan Jose, Valls Clinic, Laredo.
McGee, Aubrey S., Med. & Surg. Cl., Laredo.
Montalvo, Lauro, 204 Walker Bldg., Laredo.
Penny, George E., 801 Matamoros, Laredo.
Powell, Paul H., Jr., 801 Matamoros, Laredo.
Powell, William R., 801 Matamoros, Laredo.
Puig, Valentine L., Jr., 801 Matamoros, Laredo.
Reitman, James S. (Pres.),
1820 Guerrero, Laredo.
Rottenstein, Max, Sames Moore Bldg., Laredo.
Trevino, Enrique G., 812 Matamoros, Laredo.
Valls, Miguel, 1004 San Bernardo, Laredo.
Wright, Ray B. (Hon.),
914 Hidalgo St., Laredo.
Zec, Branko K., Hebbronville.

SEVENTH DISTRICT

Dr. David Wade, Austin, Councilor

BASTROP-LEE

Burns, Robert B., Giddings.
Goddard, Chauncey G., Bastrop.
Hardt, Sterling M., 1109 Church St., Bastrop.
Hazzard, Alford R. (Sec'y),
513 E. Austin St., Giddings.
Kroulik, Frank J. (Hon.), (dead), Smithville.
Linstrum, Tom E. (Pres.),
806 N. Ave. E, Elgin.
Loveless, Robert W., Box N, Bastrop.
Mantzel, Sherwood W., Box 187, Giddings.
Morris, Roy H., Jr., Fleming Hosp., Elgin.
Richardson, Sidney H.,
P. O. Box 468, Cameron.
Stephens, J. D., Box 817, Smithville.
Thomas, James W., P. O. Box 747, Smithville.
Vickers, Albert F., 513 E. Austin St., Giddings.
Wood, William E. (Inac.),
1010 N. Main St., Elgin.
York, William E. (Hon.), Giddings.

CALDWELL

DuBoise, Otho K., Lockhart.
Fielder, Darwin L., Lockhart.
Luckett, Francis C. (Pres.), Box 13, Fentress.
Nichols, H. Clay, Drawer 111, Luling.
O'Banion, J. Turner,
880 S. Magnolia Ave., Luling.
Playfair, James H., 516 E. Pierce, Luling.
Robertson, Wm. G., Jr., 508 E. Pierce, Luling.
Ross, Abner A., 214 W. San Antonio, Lockhart.
Ross, Alonzo A., (Emer.), Lockhart.
Wales, Philip A. (Sec'y),
214 W. San Antonio, Lockhart.

HAYS-BLANCO

Bullard, Ray E., Jr., Box 346, Blanco.
DeSteiguer, John R. (Hon.), San Marcos.
Elliott, Benge, San Marcos.
Heatly, Maurice D. (Sec'y),
Box 25, San Marcos.
McCormick, T. Charles, Jr., (Pres.), Buda.
Moore, William L., Jr.,
404 N. Guadalupe, San Marcos.

Scheib, Charles W., P. O. Box 11, San Marcos.
Sowell, Rugel F.,
302 W. San Antooio, San Marcos.
Van Ness, Julius M. (Hon.), San Marcos.
White, David L., San Marcos.
Williams, Milton C. (Hon.), San Marcos.

LAMPASAS-BURNET-LLANO

Allen, George S., 410 S. Water St., Burnet.
Brook, Winston M., Box 786, Lampasas.
Carroll, Donald W., 209 East 3rd St., Lampasas.
Dansby, Garland L. (Pres.), Llano.
Duffy, Jack G. (Int.),
Walnut at 63rd St., Philadelphia, Pa.
Gardner, Ralph E., Bertram Hosp., Bertram.
Gray, George L., Llano.
Hoerster, Dan J., 110 Maio St., Llano.
Hoerster, Henry J., Llano.
Landrum, Marvin M., Lampasas.
McMillin, D. Rush, Lampasas.
Newman, Peggy Jo (Sec'y),
P. O. Box 27, Burnet.
Ozier, Billy B., 410 S. Water St., Burnet.
Patteson, Morris K., Lampasas.
Shepperd, Joe A., Box 128, Burnet.
Shepperd, Ray L., Box 128, Burnet.
Shepperd, W. Ivan, Marble Falls.
Vaughan, Thomas D., Bertram.
Wood, Alonzo C., Jr., Marble Falls.

TRAVIS

Allison, Bruce (Inac.),
5121 Pershing Ave., Fort Worth.
Archer, John Dale,
U. of Tex. Health Center, Austin.
Archer, Thos. J., Jr.,
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Auler, Hugo (Inac.), 4701 Crestway, Austin.
Bachtel, May B., Student Health Center, Austin.
Bacon, Dan W. (Mil.),
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Baggett, Seldon O., 7 Med. Arts Square, Austin.
Bailey, Charles W., Scarbrough Bldg., Austin.
Bailey, Joe W., 502 W. 15th St., Austin.
Baio, Ruth M., 1805 Nueces St., Austin.
Barker, Paul W., 1103 Nueces, Austin.
Barkley, Douglas F., 1702 N. Congress, Austio.
Barton, James G. (Int.),
605 East 11th St., Austin.
Bates, B. Clary, 1108 Nueces, Austin.
Bendel, Henry W., Jr. (Int.),
V. A. Hosp., McKinney.
Bethea, James A.,
Capitol Station, Box S, Austin.
Blackstock, Mathis W.,
4708 Burnet Rd., Austin.
Blaustone, Henry H., Scarbrough Bldg., Austin.
Blewett, Emerson K., 13 Med. Arts Sq., Austin.
Bohls, Sidoey W., 803 E. 32nd St., Austin.
Boring, Billy Ray (Int.),
504½ Port, DeRidder, La.
Brady, J. J., 1705 Colorado, Austin.
Brandt, Otto, Jr., 1506 Guadalupe, Austin.
Brattoo, Robert E., 1606 Poquonack, Austin.
Brown, M. I.,
209 Capital Nat'l Bk. Bldg., Austin.
Brownlee, Charles H. (Inac.),
603 W. 14th St., Austin.
Brumage, Wm. S., State Health Dept., Austin.
Campbell, Charles F. (Int.),
110 N. Poplar, Kermit.
Carter, C. E., 603 Carolyn, Austin.
Carter, Rexford G., 1709 San Antonio, Austin.
Chambers, Rawley E.,
4405 Lamar Blvd., Ausin.
Chauvin, E. V., 807 Scarbrough Bldg., Austin.
Clark, George E., Jr.,
1 Med. Arts Square, Austin.
Cleveland, G. W., 1209 Parkway, Austin.
Cloud, Ralph E. (Inac.),
48 Summit View, Austin.
Cochran, William E.,
5811 Burnet Road, Austin.
Coleman, James M., 108 W. 30th St., Austin.
Colwell, Leslie C., 1110 Nueces St., Austin.
Conner, Beadie E.,
1415 Rosewood Ave., Austin.
Cooper, R. Allwyn, 924 East 32nd St., Austin.
Covert, Frank M., III, 2903 Red River, Austin.
Crockett, John A., Univ. Health Center, Austin.
Cromer, Horace E.,
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Crowell, Caroline, Univ. of Tex., Austin.
Darnall, Charles M.,
605 Capital Nat'l Bk. Bldg., Austin.
Darnall, Joseph R. (Inac.),
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Davidson, Harry T., 1403 Rio Grande, Austin.
Davis, Frances E., Austin State Hosp., Austin.
Dawson, George A. (Int.),
401 E. 17th St., Austin.
Dildy, Charles B., 801 West Ave., Austin.
Doles, Emmett A.,
704 Capital Nat'l Bk. Bldg., Austin.
Douglas, John E., 1403 San Antonio, Austin.
Dryden, Sam H., 1302 Sabine, Austin.
Dubilier, Ben,
528 Capital Nat'l Bk. Bldg., Austin.
Dunlop, Josephine N. (Inac.),
108 W. 15th St., Austin.
Eckhardt, James W.,
512 Capital Nat'l Bk. Bldg., Austin.
Edens, Lee E.,
522 Capital Nat'l Bk. Bldg., Austin.
Eppright, Ben R., Capital Nat'l, Austin.
Esquivel, Sandi, 1306 Rio Grande, Austin.
Exline, Albert L., 505 W. 15th St., Austin.
Farris, Robert G.,
Capital Nat'l Bk. Bldg., Austin.
Fatter, Mervin E., 500 W. 15th St., Austin.
Faubion, Darrell B., 2901 Red River, Austin.
Forbes, M. Alleo, Jr., 607 W. 14th St., Austin.
Fox, Kermit W., 1010 W. 19th St., Austin.
Garcia, Albert G., 209½ E. 6th St., Austin.
Garcia, John A., 209½ E. 6th St., Austin.
Gauntt, W. Charles, 811 Nueces, Austin.
Gentry, M. Elizabeth,
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Giesen, Andrew F., Jr.,
2410 Rio Grande, Austin.
Gilbert, Joe T., 918 E. 32nd St., Austin.
Glynn, James D., 707 W. 19th St., Austin.
Goddard, Walter C., 1410 Brazos St., Austin.
Graham, James M., 1504 Guadalupe, Austin.
Gregg, F. Banner, 119 Perry Brooks, Austin.
Griffin, Lawrence L., 1010 W. 19th St., Austin.
Haan, George W., 3001 Perry Lane, Austin.
Hahn, William B., 1506 Guadalupe, Austin.
Hamer, James G., 4015 Guadalupe, Austin.
Hanes, Lisburn C. (Mil.), Austin.
Hanna, Ralph, 108 W. 30th St., Austin.
Hanna, Roger J., P. O. Box 66, Adrian, Mich.
Hardwicke, Charles P., 918 E. 32nd, Austio.
Harris, Woodson W.,
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Haslund, Thomas M. (Int.),
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5153 River Oaks Blvd., Fort Worth.
Quick, David W., Jr.,
601 Goodhue Bldg., Beaumont.
Rafes, Earl H., 675 Fifth St., Beaumont.
Raines, James M.,
2002 Procter St., Port Arthur.
Reid, William L., 1195 McFaddin, Beaumont.
Reimers, Arthur F.,
Hotel Beaumont Bldg., Beaumont.
Richardson, Orville J.,
4189 Main Ave., Groves.
Richman, Irving M., 3280 Fannin, Beaumont.
Robert, W. Pierre,
2630 Laurel Ave., Beaumont.
Rollo, William C., Winnie.
Ross, Oliver H., 543 Ninth Ave., Port Arthur.
Rumelt, Allen,
3504 Highland Ave., Beaumont.
Sappington, T. B., Jr.,
102 Dryden Place, Port Arthur.
Self, Milton Myrl,
605 Goodhue Bldg., Beaumont.
Serafino, Louis C.,
452 1st Fed. Savings Bldg., Beaumont.
Shaddix, Arthur C., 1186 Broadway, Beaumont.
Sheldon, Robert B., 575 19th St., Beaumont.
Shorkey, Richard L., 370 Tenth St., Beaumont.
Simpson, Rufus K.,
2372 Calder Ave., Beaumont.
Sims, Paul M., Jr., 2081 Park St., Beaumont.
Skarke, Edward A.,
2363 Calder Ave., Beaumont.
Sladczyk, George, 3149 Procter St., Port Arthur.
Sloan, John W., 2815 35th St., Port Arthur.
Smith, Denton W., 390 Tenth St., Beaumont.
Smith, Jack L.,
1555 Driskill Dr., Beaumont.
Smith, John T.,
723 Washington Blvd., Beaumont.
Smith, William A.,
211 W. Caldwood Dr., Beaumont.
Solis, G. Robert, 2749 Procter St., Port Arthur.
Sprott, Curtis B., 2390 Cartwright, Beaumont.
Sprott, E. D., Jr., 2390 Cartwright, Beaumont.
Sprott, Maxie C., 2390 Cartwright, Beaumont.
Starr, Harry, 675 Fifth St., Beaumont.
Stephenson, G. Bruce,
370 Tenth St., Beaumont.
Stevens, Robert B.,
1297 Calder Ave., Beaumont.
Stoeltje, Joe, 1170 Simmons St., Beaumont.
Suehs, Max E.,
228 San Jacinto Blvd., Beaumont.
Sutton, Fred W., Goodhue Bldg., Beaumont.
Sykes, Walter P., 3280 Fannin, Beaumont.
Tatum, William E., (Hon.),
State Rd., Gatesville.
Tew, Alton H.,
723 Washington Blvd., Beaumont.
Thompson, Douglas J.,
2600 Procter St., Port Arthur.
Thompson, James D.,
2600 Procter St., Port Arthur.
Todd, Charles H.,
517 Goodhue Bldg., Beaumont.
Toomin, Leonard A.,
1093 Broadway, Beaumont.
Torbett, John W., Jr.,
1445 Calder Ave., Beaumont.
Travis, John M., Jr.,
2920 Harrison St., Beaumont.
Tritico, Joseph J., 949 7th St., Port Arthur.
Tyndall, Thomas M.,
2643 McFaddin, Beaumont.
Vaughan, Benjamin H.,
Adams Bldg., Port Arthur.
Walker, Taylor C., 2165 North St., Beaumont.
Wallace, Charles R., 860 Trinity, Beaumont.
Wallace, James C., 860 Trinity, Beaumont.
Wallace, Loring Scott,
1119 Goodhue Bldg., Beaumont.
Wallace, Stuart M.,
1931 Ninth Ave., Port Arthur.
Wallace, William G.,
816 Goodhue Bldg., Beaumont.
Walters, Felix A.,
1133 Boston Ave., Nederland.
Watts, Fenwick L.,
2220 Procter St., Port Arthur.
Weisbach, Philip T.,
560 Center St., Beaumont.
Weiss, Morris, 590 Center St., Beaumont.
Welch, Thomas Lee,
509 W. 10th St., Port Arthur.
Westbrook, Bonnie B., Jr.,
723 Washington, Beaumont.
White, Ben T., 1950 Ninth Ave., Port Arthur.
White, Clarence M.,
618 Amer. Natl. Bk. Bldg., Beaumont.
White, J. Milton, Sr.,
3149 Procter St., Port Arthur.
White, John M., Jr.,
3149 Procter St., Port Arthur.
Wier, Stuart T.,
505 Goodhue Bldg., Beaumont.
Williams, Chas. L., 1776 East Dr., Beaumont.
Williams, Ford G., 415 Center St., Beaumont.
Williams, Lewis M.,
3280 Fannin St., Beaumont.
Williams, Stewart M.,
714 Goodhue Bldg., Beaumont.
Williford, Herman B.,
220 San Jacinto Blvd., Beaumont.
Willoughby, Russell C., Box 535, Groves.
Wilson, Iva G., 811 Main St., Big Spring.
Woodward, John F., Jr.,
905 Goodhue Bldg., Beaumont.
Young, Isaac T., P. O. Box 147, Port Arthur.

LIBERTY-CHAMBERS

Alexander, James H., P. O. Box 606, Cleveland.
Ashby, Joe M., Box 456, Anahuac.
Barnett, William L., (Pres.),
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Bellamy, Richard C., 1815 Cos Ave., Liberty.
Castle, Charles W.,
717 San Jacinto, Liberty.
Clements, Edgar B.,
307 E. Houston St., Cleveland.
Clements, Richard O., (Sec'y),
715 Main, Liberty.
Davidson, Eli, Liberty.
Delaney, Albert L., Liberty.
Fahring, George H., Anahuac.
Fahring, Thomas L., Anahuac.
Gibson, Boyce E., Hull.
Griffin, Frank S., Liberty.
Hume, Boyd Douglas, Jr.,
117 N. College, Cleveland.
Jordan, Byron Lee, (Hon.), Daisetta.
Leggett, Walter, 106 N. Bonham, Cleveland.
Richter, Ernest R., Dayton.
Schulz, Donald P., 608 Travis, Liberty.
Shearer, A. R., Mt. Belvieu.
Wilson, Reginald, Dayton.

NACOGDOCHES

Allen, James I., Nacogdoches.
Allen, Walter B., 1301 Raguet, Nacogdoches.
Beall, J. Frank, 820 N. Mound, Nacogdoches.
Buchele, Matthew J., San Augustine.
Coussons, Charles W., (Sec'y),
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Ferguson, Sarah, 1301 Raguet, Nacogdoches.
Ferwerda, Thomas,
2311 North St., Nacogdoches.
Haley, Curtis R., Baggett Bldg., San Augustine.
McKinney, Edgar P.,
402 E. Hospital St., Nacogdoches.
McLain, Bobby M., Box 337, Garrison.
Nelson, Albert L.,
422 E. Hospital St., Nacogdoches.
Neuville, Carroll F.,
P. O. Box 907, Nacogdoches.
Pennington, Thomas J.,
820 N. Mound, Nacogdoches.
Rogers, Eugene S., (Pres.), Nacogdoches.
Taylor, James G., Jr.,
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Tucker, F. Henry, Nacogdoches.
Tucker, Stephen B., Nacogdoches.

ORANGE

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Eastman, George L., 1005 Elm, Orange.
Harris, Mattice F., 1014 First St., Orange.
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Key, Harry H., Box 950, Orange.
McFadden, Irma M., 609 Main St., Orange.
Minkus, Robert F., 5 Circle Q, Orange.
Pearce, H. Wynne, 707 Main St., Orange.
Peters, Leo J., Jr., 601 4th St., Orange.
Pollock, Douglas H., (Sec'y),
610 Park Ave., Orange.
Pretz, Earnest C., 1604 N. Second St., Orange.
Schofield, Elmer C., 1004 Ave. A, Orange.
Seastrunk, Oliver C., 306 10th St., Orange.
Shaddock, Carroll B., 402 2nd St., Orange.
Siddon, William H., P. O. Box 2054, Orange.
Smith, L. C., Box 1368, Vidor.
Stuntz, Billie W., 304 Seventh St., Orange.
Stuntz, Homer C., 304 Seventh St., Orange.
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Thompson, Louis O.,
121 W. 1st St., Biloxi, Miss.
Walsh, John K., Main and Sixth, Orange.
Watson, Victor D., Box 496, Bridge City.
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Williams, Howard C., (Pres.),
1006 Green Ave., Orange.
Wilson, Francis W., P. O. Box 2027, Orange.
Wyllie, James J., 111 Holland Bldg., Orange.

SHELBY-SAN AUGUSTINE-SABINE

Hurst, Thomas L., Center.
Oates, Laried S., 116 Cora St., Center.
Polk, Vernon T., (Sec'y),
108 Church St., Center.
Snider, L. W., Box 246, Joaquin.
Warren, William H., Box 72, Center.
Warren, Wm. Spencer, Center.
Windham, John H., (Hon.), Shelbyville.
Windham, William C., Box 666, Center.

ELEVENTH DISTRICT

Dr. C. E. Willingham, Tyler, Councilor

ANDERSON-HOUSTON-LEON

Bell, Robert H., 109 E. Angelina St., Palestine.
Brown, Adelbert B., Jr., Crockett.
Butler, Charles Wm., Jr., Box 780, Crockett.
Carter, J. Weldon, Palestine.
Cox, Robert G., 804 S. Sycamore St., Palestine.
Darsey, Edward S., Crockett.
Dean, John L., Jr., 407 E. Lamar, Crockett.
Felder, Fred E., Palestine.
Goolsby, Carl B., Med. & Surg. Hosp., Crockett.
Griswold, Culver M., Box 758, Crockett.
Harrington, Oscar B., (Sec'y),
205 E. Neches, Palestine.
Humphries, John T., Palestine.
Hunter, Ripley H., Palestine.
Joyce, Claude D., Jr., Palestine.
Kay, Royal H., Palestine.
King, Marion A., Frankston.
Murray, Carl O., Jr., (Pres.),
208 S. 4th St., Crockett.
Powell, Elisha P., Centerville.
Stokes, Paul B., 210 N. 7th, Crockett.
Wages, A. D., Palestine.
Trice, Leroy, Palestine.
Van Wey, Archie E., Buffalo.
Walkup, Thomas E.,
804 S. Sycamore, Palestine.

CHEROKEE

Adams, Clyde, Box 31, Pineville, La.
Bailey, Ralph C.,
Afghanistan, Chaman, Pakistan.
Bilbro, Griff W., Jacksonville.
Bone, John N.,
106½ E. Commerce, Jacksonville.
Boyd, James T., 915 Hillcrest, Jacksonville.
Brigham, Floyd H., Rusk.
Cobble, Thomas H., (Sec'y),
606 N. Main, Rusk.
Covington, Chas. M.,
5909 Shoalcreek Blvd., Austin.
Davenport, Harbert, Jr.,
Box 1569, Jacksonville.
Dubose, James L., (Hon.), Wells.
Fair, Harry E., Jr., Travis Clinic, Jacksonville.
Gabbert, W. E., Rusk.
Greenwood, James T., (Hon.),
Rt. 5, Jacksonville.
Hancock, Leslie D., Box 318, Rusk.
Hilliard, George M., Box 870, Jacksonville.
Jones, Ernest W., Box 318, Rusk.
Kreimeyer, James H.,
Rusk State Hosp., Rusk.
Levin, Gus, Box 318, Rusk.
Mahon, Edward L., Jr.,
Travis Clinic, Jacksonville.
Martin, Don E., Box 1470, Jacksonville.
Newburn, C. L., Box 1269, Jacksonville.
Noble, Roy C., Rusk State Hosp., Rusk.
Pryor, Victor W., 555 S. Jackson, Jacksonville.
Ralston, Leslie W.,
400 S. Ragsdale, Jacksonville.
Rives, Hugh F., (Pres.),
400 S. Ragsdale, Jacksonville.
Rossman, Robert E., Alto Clinic, Alto.
Rucker, J. Collier,
1117 Avalon Dr., Jacksonville.
Stolzar, Irwin H., Travis Clinic, Jacksonville.
Stripling, C. H.,
555 S. Jackson St., Jacksonville.
Travis, John M., Box 870, Jacksonville.
Travis, L. L., Box 870, Jacksonville.
Travis, R. T., Box 870, Jacksonville.
Verheyden, Floyd H.,
813 John St., Jacksonville.
Woods, David R., Rusk State Hosp., Rusk.

FREESTONE

Bonner, Leslie L., Box 157, Fairfield.
Cox, Jack R., Box 117, Teague.
Gage, Maurice, (Sec'y), Box 278, Teague.
Keller, John H., Jr., (Pres.),
Box 687, Fairfield.
Sneed, William N., (Hon.),
Box 103, Fairfield.

HENDERSON

Cockerell, Lonnie L., (Pres.), Athens.
Geddie, Nolen D., Jr., Athens.
Geddie, Nolen D., Athens.
Gibson, John W., 300 S. Palestine, Athens.
Haynes, Clifford R., Kilman Hosp., Malakoff.
Henderson, Roy E., Athens.
Holt, Norris E., (Sec'y), Box 188, Athens.
Kilman, Prather T., Malakoff.
Rosenbloom, Joseph, Trinidad.

PANOLA

Baker, Charles D.,
111½ N. St. Mary, Carthage.
Carter, Harvey Lee, (Mil.),
708 N. Daniel St., Carthage.
Cooper, Grundy, 808 N. Daniel, Carthage.
Gerardy, Carl W., 317 Panola, Carthage.
Hargrove, Fred T., (Pres.),
217 N. Pinewood Dr., Carthage.
Holland, Virgil M., 313 W. Panola, Carthage.
Johnson, Glen R., Box 818, Carthage.
Perlman, Samuel, 404 N. St. Mary, Carthage.
Prince, Kenneth C., (Sec'y),
313 W. Panola, Carthage.
Smith, William C., 313 W. Panola, Carthage.

RUSK

Braswell, Marlin T.,
119 S. Marshall, Henderson.
Deason, Loyd, 300 Ragley, Henderson.
Hamilton, James M., Box 908, Overton.
Heiligman, Haskell, Overton.
Hicks, Oliver B., Henderson.
Hilbun, Lynn, 119 S. Marshall, Henderson.
Kennamer, Harold E., (Pres.),
S. Helen St., Overton.
Levin, Jules R., 108 South St., Overton.
Mann, James H., 116 S. Marshall, Henderson.
McShan, Chester L., (Sec'y),
207-B N. Main, Henderson.
Ross, Jesse E., 119 S. Marshall, Henderson:
Suehs, Herbert A.,
817 N. Marshall, Henderson.
Suehs, Paul E., 412 E. Main, Henderson.
Wolfe, Alfred S., Henderson.

SMITH

Alexander, J. Ernest, Jr., (Inac.),
214 E. Houston, Tyler.
Allen, George B., 818 Clinic Dr., Tyler.
Anderson, Carter, Jr.,
Fair Foundation Bldg., Tyler.
Bailes, Porter M., Jr.,
932 Hospital Dr., Tyler.
Baldwin, Russell E. G.,
1015 Hospital Dr., Tyler.
Bankhead, Alexander J.,
214 E. Houston, Tyler.
Baskin, T. Grady, 214 E. Houston, Tyler.
Betts, Floyd G., Jr., 1020 Clinic Dr., Tyler.
Birdwell, J. Weldon, 214 E. Houston, Tyler.
Blakemore, Henry C., 107½ E. Erwin, Tyler.
Bradford, Sidney W., 1100 S. Beckham, Tyler.
Brelsford, H. Gates, 214 E. Houston, Tyler.
Bridges, Ben F., 214 E. Houston, Tyler.
Brown, George W.,
Mother Frances Hosp., Tyler.
Brown, Glynne, 432 S. Spring St., Tyler.
Brown, Irving, 815 Peoples Bk. Bldg., Tyler.
Bryant, W. Howard, P. O. Box 600, Tyler.
Bundy, David T., (Hon.),
County Court House, Tyler.
Burch, George W., 908 Hospital Dr., Tyler.
Caldwell, Elbert H., 214 E. Houston, Tyler.
Calley, Clifford R., 1006 Clinic Dr., Tyler.
Cameron, Harold B., 214 E. Houston, Tyler.
Chenoweth, Carlin Velde,
1016 Clinic Dr., Tyler.
Clawater, Earl W., Jr., 1016 Clinic Dr., Tyler.
Clawater, Earl W., Sr., 1016 Clinic Dr., Tyler.
Daniels, Herbert B., Jr., 911 S. Beckham, Tyler.
DeCharles, Patrick M., 200 E. Houston, Tyler.
Duff, Robert L., 908 Hospital Dr., Tyler.
Edwards, Martin L.,
Edwards Clinic Hosp., Hawkins.
Etter, Roscoe, Arp.
Faust, John J., Peoples Bk. Bldg., Tyler.
Ferrell, Oran L., Jr., Bullard.
Freiberg, Milton, 932 Hospital Dr., Tyler.
Gibson, Jesse W., (Hon.), Lindale.
Goldfeder, Jesse, Peoples Bk. Bldg., Tyler.
Goldsmith, J. Paul, 1716 Forest Ave., Tyler.
Goss, Vernon V., 908 Hospital Dr., Tyler.
Green, Frank D., (Sec'y),
916 Hospital Dr., Tyler.
Hart, John Garrett, 217 W. Houston, Tyler.
Hughes, Delbert E., Rt. 10, Box 17, Tyler.
Hughes, Waunell M., Rt. 10, Box 17, Tyler.
Jones, Joe C., 803 E. Houston, Tyler.
Jones, William T., E. Tex. T.B. Hosp., Tyler.
Lamberth, Ivey E., Box 3066, Tyler.
Lauck, Robert E., 214 E. Houston, Tyler.
Lee, Madison J., Jr., 1100 S. Beckham, Tyler.
Marshall, Robert L., 1100 S. Beckham, Tyler.
McDonald, Conrad C., Peoples Bk. Bldg., Tyler.
McMillan, Bruce, Overton.
Mitchell, John H., Peoples Bk. Bldg., Tyler.
Moore, Masters H., 612 S. Bois d'Arc, Tyler.
Mullowney, James P., (Pres.),
926 Hospital Dr., Tyler.
Muntz, Hascall H., 938 Hospital Dr., Tyler.
Neill, J. Lawrence, 803 E. Houston, Tyler.
Neill, Lex T., 803 E. Houston, Tyler.
Payne, Donald E., 305 W. Rusk, Tyler.
Pope, Irvin, Jr., 118 S. Bois d'Arc, Tyler.
Rhine, Leland R., 911 S. Beckham, Tyler.
Rice, Elbert D., 825 Chilton, Tyler.
Rice, Robert D., 1100 S. Beckham, Tyler.
Roosth, Harold, (Dead).
Roosth, Wiley, 1025 Hospital Dr., Tyler.
Roper, Marjorie Ferrell, Bullard.
Ross, William R., Tyler Health Unit, Tyler.
Rowe, William E., 833 S. Beckham, Tyler.
Selman, Joseph, 1020 Clinic Dr., Tyler.
Shirley, T. Clayton, 911 S. Beckham, Tyler.
Smyth, William C., 1100 S. Beckham, Tyler.
Spence, Julius H., 3023 Jan Ave., Tyler.
Stanley, Mildred, 700 S. Bois d'Arc, Tyler.
Stephens, William C., 818 Clinic Dr., Tyler.
Taliaferro, Theodore J., 1106 Trezevant, Tyler.
Taylor, Phillip W., 833 S. Beckham, Tyler.
Thompson, Cone J., 810 Clinic Dr., Tyler.
Topperman, Samuel,
East Texas T.B. Hosp., Tyler.
Vaughn, Edgar H., 830 S. Beckham, Tyler.
Vaughn, James M., 830 S. Beckham, Tyler.
Warren, Frederick M., Jr.,
Broadway Med. Bldg., Tyler.
Whitten, Samuel J., Troup.
Wilcox, Leland G., 833 S. Beckham, Tyler.
Wiles, Jack, 1015 Hospital Dr., Tyler.
Williams, Frank E., 305½ N. Spring, Tyler.
Willingham, Chas. E., 911 S. Beckham, Tyler.
Wilson, Benjamin N., 1100 S. Beckham, Tyler.
Wimberley, Norris A., Jr.,
1100 S. Beckham, Tyler.
Windham, Lynn B.,
818 S. Johnson Ave., Tyler.
Woldert, Albert, (Hon.),
603 Woldert St., Tyler.
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Young, Cuthbert B., 916 Hospital Dr., Tyler.
Zuckerman, William, Box 2003, Tyler.

WOOD

Black, William T., Quitman.
Mathis, James Ross, 408 S. Main, Winnsboro.
Merritt, Benjamin F.,
106 W. Bermuda, Quitman.
Moore, Roscoe O., (Sec'y),
802 N. Pacific, Mineola.
Peterson, Thomas H., Mineola.
Reed, Theodore B., Mineola.
Robbins, Virgil E., Box 445, Quitman.
Williams, James W., (Pres.), Mineola.

TWELFTH DISTRICT

Dr. Tom M. Oliver, Waco, Councilor

BELL

Althaus, John W. A.,
McCloskey V. A. Hosp., Temple.
Anderson, Harold B.,
Scott & White Hosp., Temple.
Arnold, William O.,
Scott & White Clinic, Temple.
Bain, George P., Scott & White Clinic, Temple.
Barrow, Rex A. Jr. (Int.),
Scott & White Clinic, Temple.
Bartels, Robert N., 304 S. 22nd St., Temple.
Bassel, Paul M., Scott & White Clinic, Temple.
Best, Edward B. (Int.),
Scott & White Clinic, Temple.
Birdsong, Karl K. (Int.),
1502 N. 2nd St., Temple.
Bradfield, Eldon O.,
Scott & White Clinic, Temple.
Brindley, George V.,
Scott & White Clinic, Temple.
Brindley, George V. Jr.,
Scott & White Clinic, Temple.
Brindley, Hanes H.,
Scott & White Clinic, Temple.
Broders, Albert C.,
Scott & White Clinic, Temple.
Broders, Albert C. Jr.,
Scott & White Clinic, Temple.
Brown, Jesse B.,
Kings Daughters Clinic, Temple.
Bruce, William J., 916 S. 45th, Temple.
Burk, Houston W.,
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Burow, F. Paul, Burow Clinic, Killeen.

Chernosky, William A.,
Kings Daughters Clinic, Temple.
Christian, John J., (Sec'y.),
Scott & White Clinic, Temple.
Cochran, Leroy M., V. A. Center, Temple.
Cox, Charles H. Jr., 317 N. Second, Temple.
Cramm, Carl J. Jr.,
Scott & White Clinic, Temple.
Curtis, Raleigh R.,
Scott & White Clinic, Temple.
Daly, William H. Jr.,
Burow Clinic & Hosp., Killeen.
Davis, Charles T.,
Scott & White Clinic, Temple.
DeBord, Bert A., 1116 N. 9th St., Temple.
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Dysart, Donald N.,
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Eanes, David F. S., 518 North 5th St., Temple.
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Fowler, Joe A., Killeen.
Frey, Harry, P. O. Box 516, Belton.
Gardner, James D.,
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Gillespie, Charles H.,
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Gober, Olin B., Scott & White Clinic, Temple.
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Greenwood, Joseph H.,
Scott & White Hosp., Temple.
Grossman, Alex, V. A. Hospital, Temple.
Haines, Richard D.,
Scott & White Hosp., Temple.
Hamilton, Dixie G. Jr.,
710 W. Rancier, Killeen.
Hamilton, Harold C. (Int.),
Scott & White Clinic, Temple.
Hammond, Fred M. Jr.,
Scott & White Clinic, Temple.
Harlan, Rudolph K.,
Kings Daughters Hosp., Temple.
Hayden, William deG., (Int.),
Scott & White Hosp., Temple.
Higginbotham, Warren H.,
Scott & White Clinic, Temple.
Hightower, Nicholas C.,
Scott & White Clinic, Temple.
Howell, Floyd W., 317 N. 2nd St., Temple.
Ibarra, Jesse D. Jr.,
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Jenkins, Jesse G. (Hon.), Route 1, Temple.
Keil, Ernest W., 518 North Fifth, Temple.
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Laurens, Henry, Jr.,
Scott & White Clin., Temple.
Long, William B., 205 N. Pearl, Belton.
Lynch, Donald J.,
Scott & White Clinic, Temple.
McCauley, Ernest R., Moody.
McCelvey, John S., 304 S. 22nd St. Temple.
McKenney, John F., Jr. (Pres.),
Scott & White Clinic, Temple.
McMillan, Charles D.,
Scott & White Clinic, Temple.
McRoberts, Marcus L.,
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Moore, James C., 317 North 2nd St., Temple.
Murray, Robert A.,
Scott & White Clinic, Temple.
Nelson, Ernest J. (Int.),
1806 S. 39th, Temple.
Nichols, Dean, 1103 N. 11th St., Temple.
Padgett, John W., 310 Ave. B, Killeen.
Phillips, Charles, 3745 Arnold Ave., Houston.
Pittman, John W., Belton.
Plasek, William W., 317 N. 2nd St., Temple.
Pollok, Lewis W. (Hon.),
618 N. 13th St., Temple.
Potter, Claudia (Hon.),
707 South 3rd St., Temple.
Powell, William N.,
Scott & White Clinic, Temple.
Rodarte, Jose G.,
Scott & White Clinic, Temple.
Ryan, James C. (Int.),
1516 Pierce Ave., Houston.
Schubert, Herbert A., V. A. Hospital, Temple.
Sewell, Harvey W., Belton.
Sewell, Julian G., Belton.
Shelton, James L.,
Scott & White Clinic, Temple.
Sherwood, Marcel W. (Hon.), (dead),
Temple.
Shibler, Samuel W.,
King's Daughters, Clinic, Temple.
Sommer, Arno W.,
Scott & White Hospital, Temple.
Speed, Terrell, Scott & White Hospital, Temple.
Stinson, James C., 213 W. Ave. G, Temple.
Sunbury, Thomas R.,
Scott & White Clinic, Temple.
Talley, J. Bartow, S. P. J. S. T. Bldg., Temple.
Talley, Lewis R.,
King's Daughters Hospital, Temple.
Thompson, John Q.,
Scott & White Clinic, Temple.
Veirs, Everett R.,
Scott & White Clinic, Temple.
Wahle, George H., 304 S. 22nd St., Temple.
Ward, Wendell P.,
912 1st Nat'l Bk. Bldg., Temple.
Watson, Arthur R., P. O. Box 1182, Orange.
Weinblatt, Jack S., 518 N. 5th St., Temple.
White, Raleigh R.,
Scott & White Clinic, Temple.
Whitten, Rondald J.,
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Williams, Bill Henry,
Scott & White Clinic, Temple.
Williams, Marjorie J., V. A. Hospital, Temple.
Wilson, James D.,
King's Daughters Clinic, Temple.
Winston, John R.,
80 E. Jackson Blvd., Chicago, Ill.
Wolf, A. Ford, Scott & White Clinic, Temple.
Woodson, W. Burbank,
103 E. Central, Temple.

BOSQUE-HAMILTON

Archer, James T., Meridian.
Blankenship, W. W., Mosheim.
Cleveland, Chas. C., Hamilton.
Goodall, Van D. (Sec'y), Clifton.
Holder, Wiseman T. (Pres.), Clifton.
Holt, Russell D., Meridian.
Key, William F., Jr., 719 W. 11th, Clifton.
Kooken, Robert A., Hamilton.
Long, Austin M., Valley Mills.
Witcher, Seth L., Clifton.

BRAZOS-ROBERTSON

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Boyd, Elvin M., 1208 Live Oak, Hearne.
Cole, Charles M., Box 747, Bryan.
Cox, Joseph M., 202 E. 27th St., Bryan.
Cruse, Ray, 1208 Live Oak, Hearne.
Fleming, James P., Jr., 710 Magnolia, Hearne.
Gallagher, Joseph C. (Sec'y),
Box 753, Hearne.
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Grant, Richard B., Jr.,
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1504 Med. Arts Bldg., Fort Worth.
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Claunch, DeWitt,
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Collier, Julius W.,
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Compere, Dolphus E.,
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Cook, Percy L., 209 Waters, Mansfield.
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Cutbirth, Seale T. (Int.),
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Neal, Durwood E.,
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Rathgeber, Van D.,
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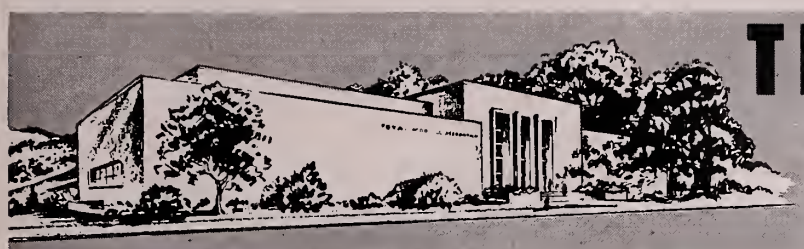

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Problems of Aging

The regional Conference on Aging held at the time of the Texas Medical Association's meeting in Dallas last April served to point toward and to define many problems presented by our aging population. The conference was made possible by the American Medical Association's Council on Medical Service and Committee on Aging in conjunction with the Texas Medical Association. The combined efforts of the Texas Geriatrics Society, the Texas Gerontological Society, the Texas Social Welfare Association, the Texas Society for Mental Health, and the Dallas Council of Social Agencies for a portion of the conference demonstrated an awareness of the problems and a type of cooperation which yielded considerable benefits to all participants.

Texas' population has recently passed the 9,000,000 mark, including an estimated 600,000 persons over 65 years of age. The latter figure is presently increasing at twice the rate of the general population and is due to amount to a highly significant segment of our population in the immediate coming years. Along with these population trends there have been such sociologic changes as movements of people from rural to urban centers, fewer self-employed persons in an increasingly industrialized economy, and reduction of the family unit to parents and their own children. With these several developments over the past half century all the attendant problems of the aging population appear to demand special urgent attention now and in coming years.

The medical aspects of these trends are, in part, obvious and all of us have taken them in as part of our practice. Some are less obvious and require research and surveying for better clarification. Chronic illnesses, arteriosclerosis,

arthritis of various types, mental illnesses, diabetes mellitus, to mention a few examples, are increasing particularly in older patients. The type of hospitalization or the care in homes for patients as well as the improvement of nursing homes and the institution of visitation programs are of practical importance. At the Dallas meeting we were fortunate to have these topics and many others ably discussed by our guests, Dr. Henry B. Mulholland and Dr. Wilson G. Smillie (see Original Articles section).

The real "eye-opener" to many of us physicians is the scope of the medical aspects relative to the aging population. It is far greater than the mere diagnosis and treatment of illnesses. Take housing, for example. Proper consideration requires medical counsel not only regarding medical care, but also for design, location, adequacy in the community, and other aspects relative to the needs of senior citizens. Rehabilitation has its physical and medical aspects, with which many of us are familiar. This in turn brings us to the economic aspect, for every person who is able to care for his daily needs is that much less a burden on society. In this field of activity and in vocational rehabilitation the role of trained personnel working with medical guidance is due to accomplish a great deal—even more than some of us might have anticipated a few years ago. Of the numerous other facets such as adult education, religion, and recreation, we may briefly consider employment.

Employment for persons reaching a fixed retirement age presents a number of difficult problems. Many different attempts at solution offer some relief in some respects. But for the vast majority the proper solution is some form of continuing employment rather than automatic retirement. The economic implications of forced retirement become obvious as we find fewer and fewer of us providing for more and more of us. And from the mental health standpoint nothing has more salutary effect than continued employment. For these obvious reasons our Texas Medical Association's Committee on Problems of the Aging offered a resolution favoring flexible retirement, which was adopted by the House of Delegates in Dallas.

What are we in Texas doing concerning these many problems? Last November a survey of organizations and committees on aging over the southern states revealed Texas well up on the list. There are also the many regional and local activities over the state and opportunities for far greater development at this level. The recent survey of facilities and services available to elderly people carried out by a committee of the Texas Geriatrics Society gives valuable, detailed information which is available in the Original Articles section of this *Journal* for each member of the Texas Medical Association.

An outstanding feature of the recent conference in Dallas was the open request of the sociologists, social workers, economists, educators, clergymen, and others for leadership by the medical profession. The request was earnest and the expression of gratitude for progress thus far demonstrates a remarkable opportunity for physicians to assume active leadership in the broadest sense in working with the problems of the aging population. The great benefits which can come to us individually and collectively as a profession in personal and public relations make it imperative for each of us to educate himself as to the problems before us and to work with and direct the nonmedical personnel who are already doing so well with the problems of aging. It is an opportunity for cooperative effort which none of us should miss.

—Wendell D. Gingrich, M. D., Galveston.

Bexar County Complaint Receives AMA Backing

It is gratifying for the physicians of Texas to know that their individual voices can be heard nation-wide. It was proved recently that when a legitimate complaint is properly pre-

sented by a physician or group of physicians to the American Medical Association, it receives very thorough and fair consideration. Only in this way may individuals and county medical societies be heard.

Bexar County physicians had a legitimate question regarding an encroachment on the private practice of medicine by Kelly Air Force Base. The complaint—that the base sponsored yearly physical examinations for Civil Service employees at taxpayers' expense—was presented in the form of a resolution by the Bexar County Medical Society to the Texas Medical Association House of Delegates in 1956. The Texas delegation to the American Medical Association in turn presented the resolution to the national medical policy-making body, which called for a complete investigation, including an on-the-spot survey of the situation in San Antonio, and a report of the findings at the 1957 meeting.

In June, the AMA House of Delegates acted on the report (details of which may be found in the Medical News section of this *Journal*), pointing out again that every doctor plays an important part in the AMA through the grass roots of American medicine.

What's Happening In Medical Education

The problems of medical education, as in practically all other types of education, have increased tremendously within the past few years, and the outlook continues to be one of more and more students, more and more schools and teachers needed, and more and more money necessary to pay the bills.

In 1953, there were 79 accredited medical schools in the United States, but by 1956 there were 82, and plans are afoot for additional schools in Texas, Arizona, Connecticut, Kentucky, Massachusetts, and Pennsylvania. During 1956, these 82 schools trained 11,000 graduate doctors, residents, and interns, and gave refresher courses to 17,000 physicians. They taught 27,000 undergraduate medical students, graduated more than 6,500 doctors, and gave instruction to 16,000 dental, pharmaceutical, and nursing students plus 8,000 non-medical students. They furnished leadership and counsel for health agencies and provided 2,000,000 people with free medical care valued at $100,000,000. They also gave short courses to 47,000 family doctors, hospital staff members, and other medical personnel, and conducted research projects costing $32,000,000.*

Who pays? Last year, tuitions accounted for only 18.2 per cent of the total cost of basic medical school operating budgets. The rest came from private and government support. In Texas alone, the American Medical Education Foundation, which gets its money from doctors, gave $30,273.84 to medical schools. The Texas Medical Association's Committee for AMEF raises funds for the foundation, and during 1956, Texas physicians contributed $20,145.44. These gifts are, of course, tax deductible and may be earmarked for a particular medical school.

The Woman's Auxiliary to the Texas Medical Association has been particularly active in work for medical education. More than $10,000 from the sale of specially designed Christmas cards last year was donated to AMEF, and was divided equally among the three Texas medical schools. This year, the Auxiliary has set a $20,000 goal (see related story in the Auxiliary section). Another Auxiliary project is the student loan fund, which is available for junior and senior medical students, interns, and residents who are Texas citizens.

To compete with other scientific careers, medicine must offer young people the finest possible training at a cost not prohibitive to the majority of qualified students. Furthermore, as the population continues to increase, the number of practicing physicians must increase in order to provide adequate medical care. Medical schools in Texas already are over-

**The American Medical Education Foundation, New York State J. Med. 57:204-205 (Jan. 15) 1957.*

crowded, and can graduate only about 320 students a year. A report on this situation appears in the news section of this *Journal.*

The proposed new medical branch of the University of Texas, to be located in San Antonio, appears to be a forward step, but doctors still must take advantage of every opportunity to insure that future medical education will adhere to the highest standards of the profession.

Godspeed, Dr. Blasingame

For 20 years, F. J. L. Blasingame, M. D., has been a hard working general practitioner and surgeon in Wharton. During that period, he has become increasingly convinced through participation in county, state, national, and international medical societies that a strong, active organization is vital to his profession and the people it benefits. Now, having held high elective office at almost every level, he has accepted full-time work as general manager of the American Medical Association, in which position he will serve and help direct the activities of 140,000 doctors of medicine.

The Board of Trustees of the AMA has named Dr. Blasingame general manager effective January 1, at which time Dr. George F. Lull, who at age 70 has held the post for more than 10 years, will become assistant to the President, a new office.

Because of his broad, yet intensive experience in AMA matters (last year he was away from home 128 days and traveled more than 60,000 miles, much of it on AMA business) undergirded by personal knowledge of private medical practice and medical associations at the local level—plus his inherent abilities and pleasing personality—Dr. Blasingame goes to his new job well equipped. His competence, integrity, and devotion to the cause of good medical care can mean only success.

While mourning his loss to this state, his colleagues are proud that a Texan of his caliber is willing to step into the office at 535 North Dearborn Street in Chicago, which is strategic to the continued sound development of medicine throughout the nation and indeed the world.

★ Current Editorial Comment

$1,000,000 from Medicare Received by Texas Doctors

One million dollars had been paid under the Medicare program to doctors in Texas on July 29 by Texas Blue Shield, which has been acting as administrative agent for the Texas Medical Association. This amount represents care given in approximately 13,300 cases.

Public Law 569, Eighty-fourth Congress, went into effect December 7, 1956, enabling dependents of the uniformed services for the first time to obtain certain limited services in civilian hospitals from civilian doctors at government expense. The government prior to this law had assumed some obligation for care of most of these dependents in military facilities. While this is still government provided health care, the difference is that now care, within certain limits, can be obtained in *civilian* hospitals and from *civilian* doctors. It is also argued that this has reduced the demand for more and bigger military hospitals and for the doctors needed to staff them.

Practically every law passed by Congress has to be implemented by regulations and directives and the Medicare program is no exception in this respect. There have been 16 directives from Washington concerning the Medicare program, some of which contradicted or changed previous ones. In May, Blue Shield mailed to all Texas physicians a "Supplement to the Medicare Manual" which incorporated and sum-

This department of the JOURNAL *presents editorial comments on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the Texas Medical Association to submit such discussions for this department. The discussions should not be more than 500 words in length.*

marized the changes in the program since its inception.

One important change was received after the supplement was printed. This change was to the effect that identification cards need not be presented by dependents until January 1, 1958, instead of on and after July 1, 1957, as previously planned, in order to entitle them to services. It is impractical to notify all Texas physicians of any and every change or ruling from Washington on the Medicare program, as they occur. The cost of printing and mailing is nearly $1,000 each time. Also, not every change or ruling affects all physicians. Nevertheless, Blue Shield will make every effort to keep Texas physicians informed of important changes in the program at the earliest practical moment.

There appears to exist in the minds of many physicians a basic misunderstanding of the role of Blue Shield in the Medicare program. Blue Shield is acting solely as administrative agent for the Texas Medical Association. It did not write the rules and regulations and cannot change them. Blue Shield pays out its own money on claims from doctors and then has to look to the government for reimbursement, which can be expected only if claims have been properly completed in exact accord with regulations. This, and this only, is the reason why many claims have to be returned to physicians for completion or correction. The irritation caused to the physician whose claim is returned is entirely understandable, but does not change the basic requirement of following the regulations established for the program.

Many doctors complain of the complicated nature of the form DA 1863. The government has been concerned about this problem, and an effort is under way to improve this form which probably will result in different forms for hospitals and doctors.

Blue Shield receives as compensation for its services, as administrative agent of Texas Medical Association, only its reimbursable costs as defined by the government. It had been hoped that some good will would be created by Blue Shield's carrying out the role assigned to it by the Texas Medical Association. Indications are that in many instances the contrary is true since many physicians are blaming Blue Shield for things about the Medicare program which are wholly outside the scope of Blue Shield's activity in the program.

Doctors who do not wish to participate in the Medicare program still have this choice open to them. Those who do participate will assist themselves if they learn the limitations of the program and the regulations which the government has said must be followed to permit payment under the program.

—W. R. McBee,
Dallas, Texas.

Mr. McBee, Executive Director, Blue Cross-Blue Shield, 2208 Main Street, Dallas.

September 7 — Austin
Texas Medical Association

PUBLIC RELATIONS CONFERENCE **INDOCTRINATION PROGRAM**

Guest Speakers:
Leo Brown, American Medical Association, Chicago
Dan J. Forrestal, Public Relations Society of America, St. Louis
Melvin Munn, Blue Cross-Blue Shield of Texas, Dallas

September 8
EXECUTIVE COUNCIL MEETING
Details in Organization Section

President's Page

CAN PUBLIC RELATIONS BE BOUGHT?

Every employee of a physician reflects to some extent the personality or the service of the doctor he represents. But he cannot carry the responsibility of keeping sick people satisfied. The efficient secretary will do her utmost to see that the patient gets an appointment at a suitable time; she will greet the patient in a friendly manner; she will see that there is a minimum of waiting and that the office is as pleasant and comfortable as possible. The alert nurse will be careful, cordial, and courteous in all her dealings with the patient. But it is the personality, skill, and thoughtfulness of the doctor that will determine whether a given individual will admire or despise the medical profession. A careless word, rough treatment, lack of sympathy, or hasty instructions can make enemies for the healing arts far more rapidly than armies of public relations people can make friends for them.

Each year we hear more and more about hiring public relations experts to help with our many problems, which seem to become greater and greater. I think the cry for experts for the medical profession is partially due to the malicious attacks made upon physicians in recent years by left-wing do-gooders who seem to want everything in America changed. Another reason is the all too prevalent idea of today to "let George do it." George has done a remarkable job at public relations in many fields, but there are a few things we should not depend upon him to do.

I believe it would be far more difficult for a layman to insert himself between the physician and the people of this country and bring about more cordial relations than it would be for a third party to do the hiring and the bill paying.

When the United States government, industry, hospitals, or insurance companies hire physicians and pay the bills, the doctor-patient relationship is being weakened. I believe the more we depend upon the experts to do our public relations job, the farther apart the profession and the laity will drift.

A few weeks ago, Dr. Sam J. Morrow died in Inman, S. C. He was one of two doctors practicing in this little town of 5,000. He had practiced there for 30 years. Yet, he was scarcely known outside of this village. The next day, the following tribute was paid to him by the *Times,* the local newspaper.

Every heart in this little town and surrounding country-side weeps over the death of our beloved friend and doctor Samuel Jerome Morrow.

It would be difficult to find a family in this territory in whose home he has not visited during the small hours of the night—watching over some sick child or mother who needed him.

The confidence his patients felt in him acted as an antibiotic for all their ills. The moment he entered a sick room—the tension seemed to lessen and anxiety seemed to fade away. He was never in a hurry—never too busy to come when he was needed and never questioned whether or not the bill would be paid.

. . . . His interest in his patients was something greater than professional. He had a deep personal interest in everything that touched the lives of those with whom he came in contact.

He loved his family and they shall be protected by the happiest of memories. He loved his church, his profession and his community and was loyal to each of them. It can be said of him as was said of old in regard to the Great Physician, "He went about doing good."

. . . .

Not long ago a faithful colored servant in this community, whose home is one of several in a row of tenant houses, received a letter from Dr. Morrow which stated, "When you call me during the night, keep your outside light on so I can find you."

If those of us who are left behind could speak to him up there in that haven of rest I am confident that we would say as he did, "Keep your light on so we can find you."

Certainly a lot of public relations are still being bought by an unselfish devotion to duty, unrelenting efforts to conquer the pains and illnesses of humanity, an abiding faith in the Great Physician, and a deep humility toward the limitations and frailties of our own greatest efforts.

Denton Kerr

ORIGINAL ARTICLES

Things of Good Report

The American Medical Association in Action

F. J. L. BLASINGAME, M. D.

Wharton, Texas

Dr. F. J. L. Blasingame, member of the Board of Trustees of the American Medical Association, represented the AMA in presenting this address at a general meeting of the Texas Medical Association during its annual session in Dallas, April 29, 1957.

The medical profession is strong because of the positive, constructive things it does. A random selection from the many and varied services of the American Medical Association suggests the significance of this organization's activities in American life.

IN THE PAST, I have been guilty of a practice which I have criticized in others—yielding to the temptation of discussing the things that are *wrong* rather than the things that are *right.*

While I do not deny that American medicine has its shortcomings, I am convinced that our profession is strong because of the positive, constructive things it does. I believe it is unfortunate that so few members have an accurate concept of the tremendous influence of the American Medical Association and its significant role in American life. The AMA is a great service organization. I shall attempt to pick at random a few instances that indicate the variety and extent of its activities.

SCHOOL HEALTH

For the past 47 years, the AMA has worked very closely with the National Education Association on problems relating to the health and physical fitness of American youth. The Joint Committee on Health Problems in Education, composed of five representatives from each organization, has sponsored many studies on health problems relating to children as well as the physical elements of the school plant. Hardly a child in school today has not been affected by the joint committee's program. In addition, the AMA sponsors biennially a Conference on Physicians and Schools for representatives of education, public health, and medicine to discuss mutual problems.

These two AMA programs have contributed significantly to our Association's prestige in the eyes of the teaching profession and brought American medicine many comments of good report. These programs are only a small part of the vigorous activities of the Bureau of Health Education.

LIAISON WITH GOVERNMENT

Not many years ago, the federal government rarely called on AMA for advice on health and medical care problems. Today that situation is no longer true.

POLIO CAMPAIGN

Although much might be said regarding the method of introduction of the Salk vaccine, it is worthy of comment that in recent months the AMA was responsible in taking the initiative to get the public to take the shots.

So widespread was the response that the backlog of 27,000,000 cc. of vaccine was used up, creating a shortage.

The American Medical Association's committee, headed by Dr. Julian Price, recommended to the Surgeon General of the United States Public Health Service that "a federally-operated allocation system for polio vaccine is not necessary to achieve an equitable distribution." Furthermore, the AMA stated that "the vaccine should be distributed equitably on a voluntary basis between commercial outlets and public agencies." These recommendations were accepted as a U. S. Public Health Service policy.

This program, then, is an example of medicine and government—working together to solve mutual problems of benefit to an entire nation.

CIVIL DEFENSE

For a number of years our Association has actively supported civil defense planning, especially in encouraging medical societies and physicians to assume the responsibility for leadership in those areas directly related to medical preparedness. Recently, the Federal Civil Defense Administration approached the Board of Trustees with a request that the AMA initiate a study to establish criteria for the medical care of surviving noncasualties as well as to consider problems of public health and sanitation that would be present in the event of an enemy attack on this nation and to make a survey of existing health facilities.

It was estimated that this joint field study would take from 12 to 18 months to complete, and the cost—estimated to be about $150,000—would be financed by the FCDA.

The cooperation of the American Medical Association with the Federal Civil Defense Administration in conducting a program of this magnitude involving

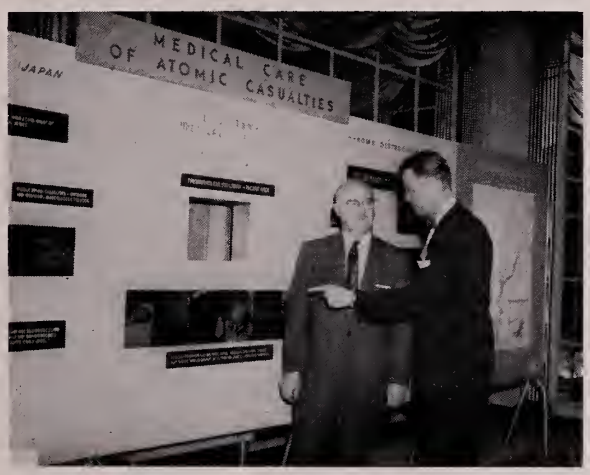

Fig. 1. Civil defense, the subject of this exhibit, is an area in which physicians have been encouraged to assume a responsibility for leadership.

the expenditure of federal funds may appear to some to be inconsistent with the Association's long-standing policy of not requesting federal grants to carry on research projects in the field of health and medical care.

The Board of Trustees discussed this point extensively. In the final analysis, it was recognized that our participation in this particular project differs on three specific points:

1. The FCDA came to us with the request that the AMA conduct this pilot study.

2. This matter involves the national security of our country. As such, the Board felt that it would be unpatriotic for the country's major medical association to refuse to cooperate with the FCDA on a medical problem related to civil defense.

3. It would be entirely impossible for the AMA to conduct this type of research project on its own—impossible because the very nature of the problem necessitates access to classified material otherwise unavailable unless the study were done in cooperation with a federal agency.

MEDICAL EDUCATION

Another contact with government can be found in the 479-page "Medical School Inquiry . . . Staff Report to the Committee on Interstate and Foreign Commerce, House of Representatives, Eighty-Fifth Congress." On July 10, 1956, the House Committee on Interstate and Foreign Commerce directed its staff to gather all possible information bearing on the subject of federal aid to medical schools. In transmitting the report to Congress, Oren Harris, chairman of the committee, expressed the committee's appreciation for the cooperation and assistance received from the AMA. As a matter of fact, practically all of the information in our Council on Medical Education and Hospitals annual report on medical education in the United States is incorporated in this "staff report."

It is encouraging to know that congressional committees are looking to the AMA for statistical information where, in the past, they have depended on less reliable sources.

LOBBYING

Since I have mentioned our liaison with certain government agencies, I thought perhaps you would be interested in comments concerning the AMA and its lobbying activities contained in a book* (Citadel; The Story of the U. S. Senate") written by William S. White, chief congressional correspondent for the *New York Times.*

Mr. White says:

> Many professional political observers, perhaps using different measures, offer many different answers to the question as to which is the most effective of all lobbies. My own experience has suggested that the most triumphant lobby of all in the defensive sense—in maintaining roughly the *status quo*—is that of the physicians in the American Medical Association. The fact is that for a generation the Senate has shied away from or actively rejected innovations in the field of public health that would be regarded as quite tame and far from desperately "socialistic" in the similar field of education.
>
> Among the probable reasons for this success of the medicos with the Institution is that at heart it is more sympathetic to professional men than to any other class except another quite traditional one, the farmers. Another is the strong, half-instinctive belief among Senators that doctors

**Published by Harper and Brothers, New York, and quoted by permission.*

will (or ought to) tend to express the *suitable* and lasting attitudes of a community rather than the unsuitable and the transitory. Finally, there is a Senatorial view, factual or founded on legend as it may be, that doctors are more influential than all others (except possibly priests in a Catholic area) in developing important public thought. (A genuine test of this theory would be interesting. It probably arises from the tireless propaganda of physicians themselves.)

OTHER LIAISON

I want to point out AMA liaison efforts with a variety of different organizations in industry and related health fields as part of this "good report."

SEARS ROEBUCK FOUNDATION

I think most of you are familiar with the work of the Sears Roebuck Foundation and its "Plan of Assistance." Since the inception of this program two years ago, 52 physicians in 18 states have been granted loans totaling $261,000 to assist them in financing the establishment of a practice. Since last December, 116 applications for loans have been received and are now being processed. The foundation's medical advisory board will meet May 31 to make its recommendations for the allocation of an additional $80,000.*

In addition, the foundation has just announced its plans to prepare a manual on sound business procedures to follow in the practice of medicine. This manual will be available through state and county medical societies and the AMA.

MEDICOLEGAL CONFERENCES

An example of the way in which medicine solicits the good will and support of other professions in working out mutual problems is the medicolegal symposiums sponsored every two years by the AMA in cooperation with local bar and medical associations. The 1957 symposiums presented at Atlanta, Denver, and Philadelphia stressed the importance of cooperation between the legal and medical professions, particularly in the reduction of traffic deaths through acceptance and use of chemical tests for intoxication. A mock trial presentation highlighted these doctor-lawyer meetings.

Fig. 2. Mock trials during medicolegal conferences create a better understanding of the roles of doctor and lawyer. The degree of intoxication of a driver involved in an accident is being determined here.

** When the board met, $100,000 was authorized for loans.*

AMERICAN MANAGEMENT ASSOCIATION

Several weeks ago, Dr. Leonard Larson, a member of the AMA's Board of Trustees, was asked to address a meeting of the AMA in Chicago. The initials "AMA" in this latter case refer to the American Management Association. The cost of medical care was the topic Dr. Larson was asked to discuss.

With the rapid growth of voluntary health insurance—particularly in the industrial field—you can appreciate management's interest in medical care costs and our interest in placing them in their proper perspective with the cost of all other goods and services.

The accompanying illustrations will give some idea of how Dr. Larson handled the subject.

Here again is another example of our Association reaching out to other groups throughout the United States and telling medicine's story.

EVEN FOR ONE

Tooting our own horn sometimes is necessary—even for doctors! I would like to give a good report on how this is being done by the American Medical Association. In response to a dictate of the House of Delegates to highlight the importance of skill, knowledge, and judgment in medical practice, the Association produced a 28-minute dramatic film entitled, "Even for One."

In one scene, Dr. Austen tries to convince a mother that he is advising a wise program for her son. Let me quote a portion of the conversation:

> "Ella, what is it you think you buy when you ask for my services? . . . When you call me to your side to help you or your husband or your son, you are buying what it has taken me all my life and training to learn . . . you are buying my skill, my art, perhaps—but most of all my judgment . . ."

This film has been well received and widely used, having been shown thus far to more than 100 television audiences.

MAGAZINE RELATIONS

AMA services have had considerable influence in the popular magazine field over the past four years. The Association's magazine relations program serves

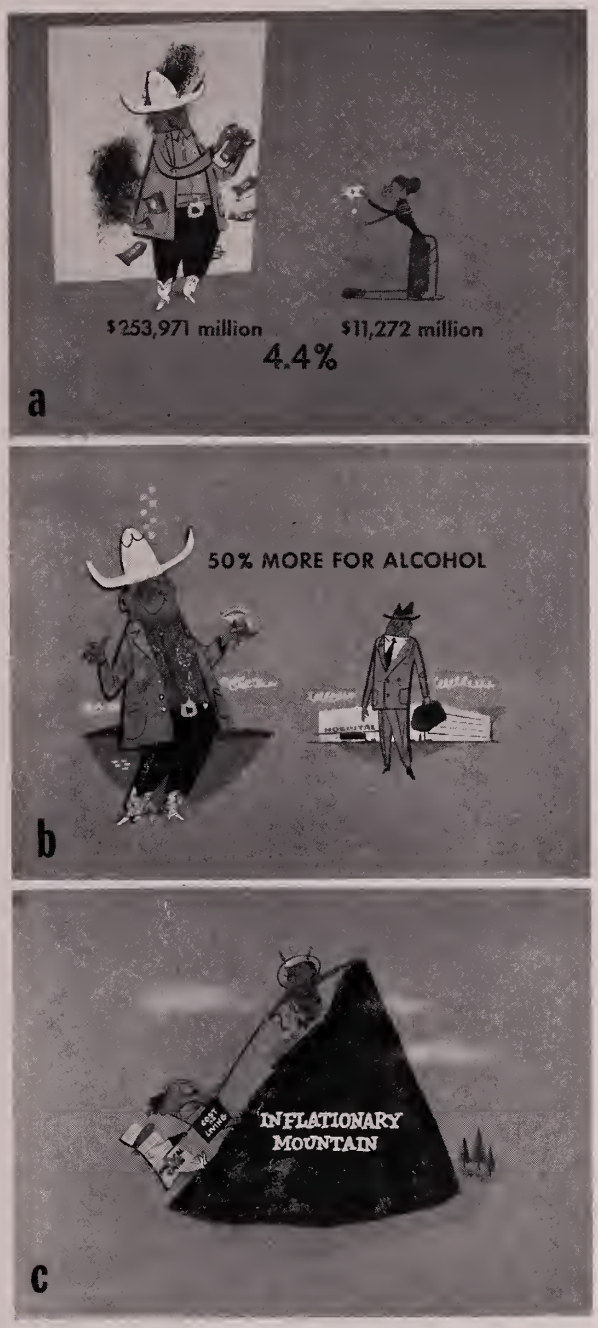

Fig. 3a. Personal expenditures for all aspects of medical care by the American people in 1955 ($11,272 million) were only 4.4 per cent of total personal consumer expenditures ($253,971 million), a percentage that has stayed almost steady since 1930.

b. In 1955 the American people spent more than $13 billion on recreation (almost $2 billion more than on all medical care) and more than $9 billion on alcoholic beverages (almost 50 per cent more than on physicians and hospitals).

c. From the base period of 1935-1939 to 1955, the entire consumer price index increased 91.4 per cent. The cost of all commodities rose by almost 105 per cent, while all services increased by just less than 80 per cent. Medical care and drugs rose less than 78 per cent, and physicians' fees alone, less than 66 per cent.

more than 200 editors and writers each year. The popularity of health and medical articles appearing in magazines of over a million circulation is certainly indicative of public interest. Last year 390 articles on medicine and health appeared in these general circulation magazines. A careful analysis reported each week in the *JAMA* has revealed that less than 5 per cent of the articles could be classified in any way as derogatory to medicine.

This result does not just happen but is brought out by careful liaison which has been established to maintain this high "batting average."

Occasionally, bad articles will appear—but it is important that we take into consideration the over-all contributions of this medium. It should be considered an instrument of good effect and not condemned for a few bad articles.

The American Medical Association has been much more successful by practicing preventive public relations in this field rather than by expressing criticisms after an article has been published.

PLACEMENT SERVICE

Not too long ago, the medical profession was on the block in the public press with reports of so-called doctor shortages and inadequate supply of medical service.

To meet this criticism, a stepped-up program of physician placement at both the national and state levels was instituted. Today, as a result of the implementation of this program, the "good report" is that 43 state medical societies now offer placement assistance. The AMA placement service acts as a clearinghouse for relaying requests for physicians desiring a place to practice and for communities in search of a doctor.

Fig. 4. Placement services for physicians have meant better medical care for communities throughout the land.

As a little aside, I want to say that I have been requested to offer AMA's congratulations on the fine job being done in Texas, which has one of the most active placement services in the country. Our recent survey on the distribution of physicians in Texas is the only formal survey of this type to be completed by a state society.

MEDICAL QUACKERY

Even though it looks as if American medicine is waging a winning fight *for* better distribution of doctors and medical care, our battle *against* medical quackery is never ending. Our Association has played a significant role in the educational campaign to warn the general public against charlatans and medical quacks.

It is pleasing to note that the Food and Drug Administration is taking action to curtail quackery and has taken a stand against the Hoxsey Cancer Clinic. The FDA's most effective piece of literature to date has been the "Public Beware!" poster, which may be found in thousands of post offices and other public buildings throughout the country. This poster has been reproduced in the *Journal of the AMA* in the hope that many physicians will place this poster on their office bulletin boards.

EXHIBITS

Hundreds of thousands of Americans each year pass by one of our Association's health exhibits on display at state and county fairs, home shows, or one of the many health fairs being sponsored coast-to-coast.

The American Medical Association has long considered that one of its primary functions is the presentation of authentic health information to the public. The Bureau of Exhibits maintains an extensive library on exhibits on subjects ranging from alcoholism and the drinking driver to exhibits of the various organs of the human body. One popular exhibit, "Life Begins," presents the dramatic story of the miraculous beginnings of life and features actual human fetuses embedded in clear plastic blocks. All of these exhibits are available on a loan basis to any medical society interested in carrying on a worth-while community service by sponsoring a booth at a local fair or organizing a show devoted to health.

SCIENCE FAIRS

There is a growing interest in science among our young people.

This year thousands of high school science students from all parts of the country spent countless after-school hours pouring over test tubes, microscopes, and glue pots preparing elaborate—and highly informative—exhibits for display at local science fairs.

In accordance with a resolution passed in June, 1956, by the House of Delegates, the AMA has undertaken again, as it did last year, active participation in this constructive program to encourage the youth of our nation to take a serious interest in the field of science as a career.

More than 250 student finalists from 126 regional science fairs will compete for national honors May 9-11 at Los Angeles. At that time, a special committee of the AMA will present two "first" and two "honorable mention" awards to the four students judged to have the best exhibits in the basic medical science classification. In addition, the AMA will be host at a banquet in the Biltmore Hotel to approximately 800 —including exhibiting students, their teachers, fair officials, and newsmen from newspapers that sponsored local science fairs. Moreover, AMA again will invite the two top winners to exhibit at the AMA meeting in June in New York City.

OTHER PROGRAMS

This presentation is incomplete; but it will serve to point out various aspects of the work of the AMA. No mention has been made of the work being done through a joint committee for the mutual benefit of the medical and pharmaceutical professions; cataloguing of professional records; publication of the *JAMA*, the nine specialty journals, *Today's Health*, "Standard Nomenclature," "Index Medicus," and the "Directory"; workings of the scientific councils (pharmacy and chemistry, physical medicine, etc.); Council on Medical Service with seven subcommittees; Council on Medical Education and Hospitals (intern and residency training programs, etc., and Congress on Medical Education and Licensure); Council on Industrial Health; Council on Rural Health and its educational program in cooperation with the Committee on Pesticides; Washington office; and many other programs.

FINANCING

The annual budget of the American Medical Association is about $11,000,000. This amount comes from return on investments, profits in operation of our publications, and dues ($25 per year—$10 for operating expenses and $15 to cover subscription to the *JAMA* or one of the specialty journals).

I believe that any reasonable and informed observer will agree that members of the AMA get their money's worth.

SURVEYS

Before closing, it is worthy of mention that the leadership of the AMA is continuously attempting to evaluate its policy positions as they affect the medical profession and the public.

Last year, a survey of public opinion was made to determine what Americans think of the medical profession and medical costs. A study also was made of opinion held of the AMA and the *JAMA*

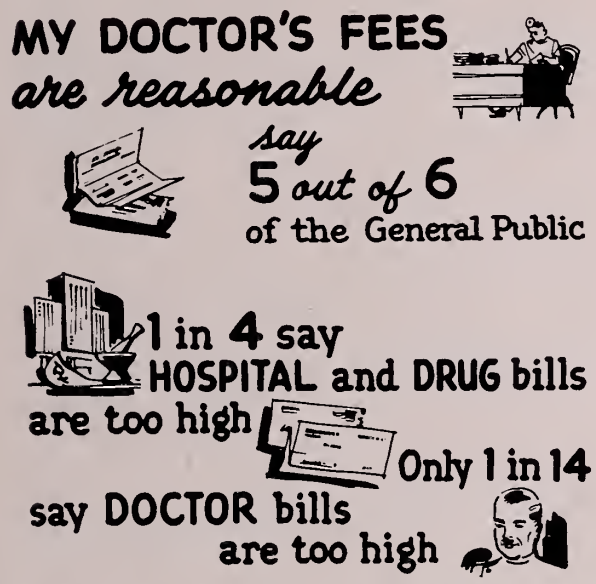

Fig. 5. Surveys help American Medical Association leaders keep up with trends and opinions, including those of the public toward the medical profession.

by the profession and by advertisers. Such studies prove very valuable and give accurate information as to trends and opinions. With accurate information at hand, problems become more clear-cut and their solution more apparent, assuming there be a solution.

BOARD OF TRUSTEES

No report that I might make to you of this nature would be complete unless I said something about the Board of Trustees of the American Medical Association.

It has been my privilege to serve on this board for the past eight years. It has occurred to me that perhaps you might be interested in a quick rundown of some of the items which have come before the Board for consideration during recent months.

In addition to handling the financial and administrative problems of the Association as well as the activities I have reported, consideration has been given to:

1. Paramedical groups—their educational programs and problems.
2. State and national laws on optometry.
3. All federal health legislation.
4. Physicians exchange programs with foreign countries.
5. A request from the Virgin Islands on the formation of a medical society as a component of the AMA.
6. Establishment of a foundation to provide research grants and fellowships.
7. American Medical Education Foundation.
8. A request from the Joint Blood Council for AMA's cooperation in a nationwide survey on blood banking facilities.
9. Joint Commission on Accreditation.
10. The narcotics question.
11. Joint Commission on Mental Health.
12. Corporate practice of medicine.
13. Union health and welfare programs.
14. Voluntary health insurance.
15. Appointment of Association representation on dozens of liaison committees.

Even this particular random listing will serve to give some idea of the load and responsibility which rests upon your Board of Trustees. Some of the decisions reached by the Board do not come easily. At times, debate waxes long. Mistakes are made; but they have been of the head rather than the heart.

CONCLUSION

Time has permitted me to touch only briefly on a few of the many positive programs of our Association. I hope this presentation will stimulate your interest so that you will consider it a personal obligation to increase your understanding of the vast and vigorous efforts of the AMA.

In human affairs, an important position is occupied by medicine; and it appears likely to become even more significant in the future.

As St. Paul wrote, "Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue and if there be any praise, think on these things."

♦ Dr. Blasingame, 105 Hawes Street, Wharton.

Medical Aspects Of Aging and Long-Term Illness

H. B. MULHOLLAND, M. D.

Charlottesville, Virginia

TWO YEARS AGO, the American Medical Association decided that it was high time to take some cognizance of the problems concerned with our aging population and proceeded to set up a committee to which was attached the cognomen, "Geriatrics Committee." Soon, however, it was recognized that the term geriatrics carried with it a certain finality that one was on the downgrade, and indeed, perhaps with one foot at least poised over the grave, if not in it. As our committee concerned itself with the problem, it was evident the aging process began at conception, and furthermore, its progress may be extremely subtle for many years. After all, when one views cells under the microscope, they do not show much change with the lapse of time. Therefore, perhaps of great importance is research into the fundamental metabolism of the young and growing cell which is quite different from that of the older cell. Indeed, we do know definitely that cancer cells, for instance, have a different metabolic base than normal cells. Even though the various electrolytes and metabolic functions of the body seem to change so little during our life span, there may be other factors yet uncovered which may contribute important knowledge to what constitutes the aging process. From the known facts and many probably unknown, it is clear that we must think of this process in its broadest concept and direct our efforts and research into the problem with this in mind. For this and other reasons, we have now changed the committee's name to the Committee on Aging.

The committee's objectives have been defined as follows:

1. To explore problems concerned with the medical, biological, psychological, and social aspects of aging.
2. To collect data concerning energy maintenance, fatigue control, and the preservation of specific motivation.
3. To promote research in these areas.
4. To inform the medical profession of the availability of information regarding the aging processes.
5. To stimulate medical society interest in the problems of the aging.
6. To impress upon the practicing physician the important role he can play by assuming community leadership to enrich the lives of older citizens.

I shall try to elaborate briefly on these goals, realizing, however, that most of the facts I mention are well known. But perhaps repetition will serve to emphasize their importance.

RETIREMENT AT 65

Medical problems of the aging are closely related and associated with the retirement policy in the country at large. With what may have been thought to be good and sufficient reason, retirement age has been set around 65 years, for industry, labor, educational institutions, and others. Now that the average duration of life for men is at least 68 and women 70 plus years, it behooves us to reevaluate critically this policy. If one looks around, it is easy to see and cite examples of those persons more than 65 years of age who are quite capable mentally and physically of major contributions to whatever walk of life they might be in, and wherever they have been psychologically tested with their efficiency estimated, oftentimes surprising results have been uncovered. Persons in this age group have been found to compete very well with the younger age group. The country needs the collected wisdom and experience of many of these older people. To be sure, oldsters should be willing to allow the younger people under them to achieve the higher positions, but on the other hand, the capable individual should be kept on if even in a consultative basis. Otherwise, forced retirement results in lack of motivation, decline of interest, and dejection, and physical and mental deterioration may rapidly follow in its wake.

We must head up a program of education directed towards industry, labor, educational institutions, and the public in general to acquaint them with very obvious and important facts; namely, that this group which now numbers 14,500,000 is growing at twice the rate of the general population, and that it will not be long before we have at least 20,000,000 of these people in this country. No one can deny that such a group constitutes a segment which must be seriously reckoned with, economically, socially, and politically. It is estimated that there will be 75,000,000 people over 45 years in this country in 1975, which group, if it wishes to assert itself can become a powerful political pressure group. Economically, the

young men and young women of this country cannot afford to have these people dependent on them for their daily living. Experience has shown that it would take very little effort to make many of these persons self-supporting and self-sufficient, and many surveys made during recent years have shown that few of these oldsters want to retire. As a matter of fact, only 1 in 25 wishes to do nothing after the age of 65 years.

One of the phases of the problem that we as doctors might give some thought to is that of preparing

Dr. H. B. Mulhalland, prafessar af internal medicine and assistant dean, University af Virginia Medical Schaal, and chairman af the American Medical Associatian's Cammittee an Aging, presented this paper at a jaint lunchean af the Texas Geriatrics Society and the Section an Public Health, April 30, 1957, at the Texas Medical Associatian annual sessian in Dallas.

Forced retirement ot 65 often results in lock of motivation, decline of interest, ond dejection, followed by physical ond mental deterioration. Periodic heolth examinations ond focilities for coring for the oged ond for rehobilitotion are important. Physicions should realize the mognitude of the problems of aging and take the leod in doing something obout them.

men and women for this phase of their lives. Much can be accomplished through preretirement counseling, stimulating the development of hobbies and occupational therapy, and placing these people in the type of job best suited to their training and particular time of life. As a matter of fact, some industries cushion the effect of retirement by allowing an increasing period of vacation beginning at 60 years with one month and ending up at the age of 64 with a six months' vacation, so that at the time the persons actually retire, they have interested themselves in some other phase of life. Other medical aspects should include observations and attention to the effect of environment and stresses of life on what happens to people as they get older.

DISEASES OF AGING

One hears much about the effects of diet, particularly the fat content, and its influence on two of the most important factors involved in the aging process, namely, atherosclerosis and arteriosclerosis. Too much emphasis cannot be placed on the importance of finding out what makes arteries harder and why the process is accelerated in some and not in others; and why diabetics seem to have more of it more often than any other group of people of the same age. Many of the catastrophes that occur in this age group, such as coronary thrombosis, cerebral vascular accidents, peripheral vascular disorders, and other debilitating illness, might be prevented or at least postponed, if we could slow down the inception of this change in the blood vessels. Recent research has thrown some light upon the subject in that we know that certain nationalities who eat low fat diets seem to have less changes in their blood vessels, but at the same time one should not consider abruptly changing the life eating habits and cooking habits of the American public until more is found out about this concept. It is important to keep an open mind, but to get information from the good research that is done rather than from the daily press. It is obvious that obesity, which is certainly quite prominent and evident in the population of this country, may contribute materially to this process, and control of weight should certainly be fundamental.

Chronic illness is bound to be more prevalent as we grow older. The Commission on Chronic Illness has spent seven years in trying to evaluate and find some solutions to the many problems concerned with this in the older population and also in other age groups. Complications of arteriosclerosis, arthritis, and mental illness all constitute a major segment of the ills of our older population. First and foremost, we should encourage periodic health examinations done by all physicians with proper emphasis on screening procedures, picking out those procedures which might give some true insight into the early recognition of disease processes and which might point the way to eradication or slowing down of their progress. Good histories with attention to environmental factors and an accurate physical examination still remain important tools to work with. Selected laboratory tests might be useful. Once a disease state has set in, it is proper to plan to give the best care possible to these patients.

FACILITIES FOR CARE

Every general hospital should have in direct physical association a unit which is thoroughly equipped both in personnel and in physical facilities for evaluation, initiation of the necessary rehabilitation proceedings, and disposition of cases of chronic illness. This unit is much superior in many respects to the chronic disease hospital, which is of necessity an expensive type of operation, having to duplicate all of

the facilities found in a general hospital. Not only is it valuable to the hospital itself to have a chronic disease unit, but its personnel may be stimulated and indoctrinated into the multiple phases of the handling of chronic illness. Nearby each such institution, it would be wise to have a so-called convalescent home type of facility, where one could take care of those persons not requiring intensive hospital treatment. Such cases might include ununited hip fractures, hemiplegias, and the like. These no longer need expensive care but should have pleasant surroundings and not be in the midst of a lot of sick people; should have minor nursing care and medical supervision when necessary; and most important, should have rehabilitation, both mentally and physically, with the ultimate stimulus to look after themselves!

In New York, a recent survey conducted by a committee headed by Dr. Howard Rusk, revealed that 20 per cent of the people now in the general hospitals in that city could be cared for in this type of institution, and that these people would pay only $6 or $7 a day as compared with $22 a day in a general hospital, saving the city of New York thereby $6,000,000 per year.

Some thought should be given to the possibility of using some of the facilities now labeled for tuberculosis, because the morbidity of this disease is going down, the time these patients have to stay in the hospital is decreasing by leaps and bounds, and in some states fairly large institutions formerly housing tuberculosis patients are now used for chronic illness. Small hospitals constructed under the Hill-Burton act in relatively rural communities too play an important part in caring for the chronically ill. The staffs of these hospitals should be indoctrinated into what is best to do for these patients. Nursing homes are now caring for 400,000 aged and chronically ill; therefore, they constitute an important link, but there are many problems connected with these institutions. They must have proper licensing, good medical care with at least a minimum of rehabilitation, and more fundamental financial support of those who must be placed in these facilities.

Perhaps some states may follow the state of Washington, categorizing these homes into various types, namely, some for the aged, some for the senile, some for the chronically ill, and some especially for rehabilitation. Occasionally foster homes might be useful in a community where a person has no family or where the family cannot take care of him, thereby giving not only care of the patient but to those caring for them in a foster home some remuneration.

Many communities are now in the process of wondering what they should do about homes for the aged. If one wishes to go into the question, there are many models which might serve well for any community. The fundamental construction of such facilities is of importance. There must be a minimum of stairs to climb, surroundings should be bright, and these structures should be accessible to such things as a movie and a five and ten cent store. Simple things as nonskid floors are important, but above all, these persons should have privacy, and wherever possible, husbands and wives should live together. Recreational facilities with companionship do pay off. Two institutions have recently reported that with some attention to recreation and motivation the suicide rate has been cut from a considerable figure to practically zero. We can take a leaf out of the page of fraternal and religious organizations which in many areas run excellent nursing homes with features that might well be copied.

Most of us believe that the best place for the aged person and the chronically ill patient is in his own home, surrounded by his relatives and friends and his own cherished belongings. This may be difficult to achieve in our modern way of living, but it makes it none the less desirable. To accomplish this, it is often necessary to have assistance of the homemaker's service, first set up for children but now applicable to adults as well. These people may be of considerable assistance in the household, helping to cook and order groceries, making beds, wheeling the ill person around, and doing everyday household chores while the wage earner is away. Many patients may need the services of a visiting nurse, and indeed, such services may be rendered by married nurses who want to work a few hours a day, and in this way the minimal medical needs of these people may be taken care of. In every phase of the care of the aged and chronically ill, their own family physician must play an active part. He should always be aware and be in touch with the status of his patient, and it is his responsibility in the long run to make the proper disposition of his cases. This may take a lot of doing and require a top community organization fully aware of the needs and alert to the facilities available in the area. It is to such a group that a doctor should be able to go for guidance. Success cannot be achieved unless there is a free flow from one facility to another, and the patient should always be in that institution or facility which best fits the immediate needs of the particular phase of his illness.

REHABILITATION

No plan may be considered successful without major emphasis being placed on rehabilitation. The

literature is replete with examples which show how well rehabilitation may pay off financially. Indeed, individual cases made self-supporting and self-sustaining often save a community thousands of dollars. Vocational rehabilitation has paid off both to the individual and to the government in income returns from such persons who have received this attention. Each community may not be able to supply a rehabilitation center, but at least such centers can be set up on a regional basis, and if this is not feasible, mobile units are quite possible.

CONCLUSION

I am aware that personnel for all of this is in short supply, but financial support and an awareness of the satisfaction derived from doing something for these people should help to get more people interested in working with the aged. The field of genetics is just beginning to come into the purview of those interested in prevention of disease at all ages, and it may occupy an important position in the biological attack of the problem of aging.

We have not solved the problem of the relationship of such conditions as diabetes mellitus to vascular changes, nor can we neglect the factor of inheritance of a good vascular tree. There may be other factors which will be shown to play a role. Some of these, namely fatigue, diets, and stress, have been merely superficially attacked. Dr. Paul White believes that exercise may play a major role in the well being of older age groups, and I am sure that many examples can be cited to support his thesis that a little constant exercise is a good thing. Indeed, he is advocating that carefully selected graduated exercise may open up new collaterals in those who have had coronary thrombosis.

We must set our sights so that we can really try to solve some of these problems by realizing their magnitude and stimulating doctors and laymen to tackle the important social and economic aspects of aging. If we ignore them, their impact on the lives of succeeding generations will be unbelievably serious. For this reason, physicians should take the lead and assume the top role in seeing to it that the communities and the public are aware of the facts and of what we as physicians think should be done about the problem.

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Convalescent Homes

Their Place in the Medical Care of the Community

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Dr. Wilson G. Smillie, Professor Emeritus of Preventive Medicine, Cornell University Medical College, presented this paper for the Conference of City ond County Heolth Officers April 29, 1957, in Dallos.

Lack of adequate facilities for convalescent or chronically ill patients who do not require constant physician care presents a gap in the over-all medical care program in many communities. Some communities have provided convalescent homes or rehabilitation centers where patients can get needed care at less expense than would be possible in a hospital.

THE IMPORTANCE of convalescent homes is that they are related, in an important manner, to the medical care of chronic illness, with special reference to older age groups. Since I do not know the over-all medical care situation in Texas, I can speak only in general terms from my own experience in rural and urban areas in other parts of the nation.

Certain aphorisms first may be presented:

1. We have not solved the problem of adequate care of persons who suffer with chronic illness.

2. Consideration must be given to this matter because of its ever increasing importance:

   a. The problem has become important because of the ever increasing number of persons in the older age groups.

   b. The decline of infectious diseases in the younger age groups has propelled our population into higher age brackets, thus increasing the relative number of individuals "at risk" to the inroads of the degenerative diseases.

In general, the older one becomes, the greater the certainty of the advent of chronic illness. It is true, of course, that chronic illness is not limited to persons over 65 years of age. In fact, there are greater numbers of people who suffer with chronic illness who are from 40 to 45 years of age than in any other five year life period. However, it is true that the person past 65 years of age requires more physician care than those in the younger age groups. District nurses tell us that well over 60 per cent of their services are devoted to the care of chronic illness in elderly people.

First let us establish certain definitions:

Medical care. This title is not limited to physician care, as it was in pioneer days, but includes all community facilities that are required for promotion of health and prevention of illness. It encompasses hospitals of all types, clinic services, physicians, dentists, nurses, ancillary medical services, public health and welfare departments, and voluntary health and welfare agencies.

There are four foundation stones in adequate medical care: (a) prevention; (b) diagnosis; (c) treatment; and (d) rehabilitation. Each of these components is implemented by individuals who have varied and special skills. The whole must be coordinated in order to be fully effective.

Chronic illness. The broad definition that we shall employ is any illness which causes, or potentially may cause, serious disability for a period of three months or more. Certain types of illness are chronic, but may not be seriously disabling. Examples are otosclerosis, hypertension, controlled diabetes, and certain forms of arthritis.

EXISTING FACILITIES

The general pattern of existing facilities for care of chronic illness is as follows:

1. Hospitals for care of the acutely ill. These facilities are widely used for care of the chronically ill. They should be so used for diagnosis, initial treatment, and care of subsequent acute relapse of chronic conditions, but otherwise they are not suitable for prolonged care. General hospital facilities are widely utilized, particularly in the smaller rural hospitals, chiefly because no other resources are available.

2. Nursing homes. For the most part these are proprietary institutions which are intended primarily for the care of elderly people who have a terminal prolonged illness.

3. Physician care in his office, or clinic care for the indigent. This is an excellent facility for care of the ambulatory patient who has chronic illness.

4. Home care. The physician care usually is supplemented by home nursing. The district nurse plays an important role in home care. In some industrial areas a system has developed by means of which the general hospital is extended into the home. The patient remains on the hospital register and is visited by the district nurse and the hospital staff physician when necessary. When a patient leaves the hospital he is discharged to "hospital-home care," returning as often as necessary for special therapeutic procedures without readmission. This plan is suitable for densely populated areas, but has not been developed in rural communities.

5. State institutions—particularly state hospitals for care of mental illness. These institutions are used extensively for the care of senile dementia patients and those with cerebral arteriosclerosis. In some states more than 50 per cent of admissions are of persons over 65 years of age. In certain areas the state mental disease hospital has become in reality an institution for the custodial care of elderly patients. The state hospitals are highly unsuited for the care of these patients. A plan should be developed in which the hospitals for mental illness are reserved for diagnosis and treatment of the mentally ill patient who has hope for rehabilitation.

Traditionally the county farm has been an institution for the custodial care of elderly indigent people with chronic illness and disability. For the most part such institutions have been abandoned as unsuitable, but if they are properly constructed and well administered they may fill an important role in over-all medical care.

CATEGORIES OF CHRONIC ILLNESS

Ambulatory Patients.—The great proportion of persons with chronic illness are at least semiambulatory. They can be cared for adequately if they live at home by means of physician supervision, clinic service which has rehabilitation facilities, and district nurses.

To this may be added special rehabilitation units such as "sheltered workshops," and "work classification service." For those who have no home, a system of "foster homes," comparable to foster home care of children, is better than institutionalization. The foster home system may be employed for care of ambulatory patients who have slowly progressive senile dementia, cerebral arteriosclerosis, or in selected instances, those with the higher grades of mental retardation.

Bedridden Patients Who Are Relatively Nonrehabilitable.—Examples of nonrehabilitable bed patients are elderly persons with cardiac decompensation, terminal cancer, advanced arthritis, extensive cerebral hemorrhage, and a host of similar conditions. These patients require medical supervision but not constant physician care. Here nursing service is the most important element. "Practical" nurses can be

utilized with advantage. Important factors are homelike surroundings, comfort, and ready access of friends and family. The solution is the small nursing home, from 12 to 25 beds. These nursing homes are now widely available. The usual pattern is the conversion of a mansion of vintage, just off the main street, into a proprietary nursing home, which is usually operated by a practical nurse, with untrained assistance. It has a homelike atmosphere, but seldom is it adapted to the needs of bedridden patients. Often it is a firetrap. Exploitation of patients is a potential danger, but it is seldom encountered. As a rule the patients get excellent care at a relatively low cost.

It is now generally believed that the nursing home should be a local community enterprise, administered preferably by a voluntary agency. It should be constructed for the purpose intended, should be one story, and be fire resistant with ready exits. A registered nurse should act as supervisor, with physicians on call. It does not require elaborate diagnostic or therapeutic equipment. In brief, the nursing home has its limitations, but serves a special and useful purpose.

REHABILITATION CENTERS

The great unmet need in our medical care administration is a facility to care for the person with chronic illness or disability who is rehabilitable. This patient should not remain in a hospital for acute illness for a longer period than is required for diagnosis and initial therapy. He cannot be cared for adequately in a nursing home; nor in his own home. Although the need for this type of service is urgent, and is increasing, we have only begun to make plans to meet this need. As yet we hardly fully understand its function and its relation to other medical care facilities.

This new facility, for which we do not even have a suitable title (rehabilitation center, restoration center, convalescent center), must be much less elaborate and less expensive to construct, equip, and operate than the general hospital. It must be soundly constructed and well planned, and above all, must have facilities for rehabilitation. It does not require its own pathological laboratory or operation room, diagnostic laboratory, or other expensive diagnostic and therapeutic facilities. It does not require constant physician attendance, but does need expert nursing supervision. It requires the facilities of physical therapy, occupational therapy, and social service. It must have a direct line of administrative relationship with the community hospital for acute illness. Preferably, the administration and sponsorship of both institutions should be identical, or at least closely related. This provides for ready transfer of the patient to and from one institution to the other.

At present, some chronically ill patients are retained in the general hospital for long periods, but the tendency is to reserve the beds of acute illness hospitals for patients who will occupy them for no longer than five to eight days. Furthermore the general hospital should not require equipment for physical and occupational therapy. This type of therapy belongs to the rehabilitation center.

I shall give some illustrations of various experiments in the development of facilities to meet this vacuum in our medical care, and attempt to point out the advantages and disadvantages that have unfolded in each instance.

BURKE CONVALESCENT HOME

The beautiful Burke Convalescent Home, White Plains, N. Y., was endowed as a nursing home in memory of a widow who, in later years, suffered a prolonged illness with no available recourse. Her son became wealthy and left his fortune to found the home. In due time the services of the home were reevaluated, and it was decided to convert it into a rehabilitation center. The bed capacity was reduced from 274 to 170 beds. Physiotherapy, occupational therapy, and social service were installed. Direct affiliation was secured with a university hospital through suitable staff and board member appointments, and a referral system was inaugurated with other community hospitals. Ready transfer of patients from the hospitals for acute illness to the convalescent home was established. The home is used for cases such as a patient who had had a coronary attack and who was ready for discharge from the university hospital, but not ready to return home, and a young man who had an amputated leg but had no prosthesis and needed time for adjustment to his new life. Surgical patients of great variety can leave the acute illness hospital in a few days, if there is an adjacent suitable, relatively inexpensive facility for their convalescence and rehabilitation.

One great disadvantage of the Burke Home is that it is too far from the parent institution, some 12 miles, and, furthermore, it is not an integral part of an over-all medical care plan. The difficulty is solved in part by suitable dual staff appointments. The physician in the general hospital, in referring a patient to the Burke Home, is in reality referring the patient to himself.

GAYLORD FARM

Gaylord Farm at Wallingford, Conn., is one of the earliest voluntary tuberculosis sanatoriums in Amer-

ica. It has a substantial endowment. As tuberculosis decreased, the hospital population declined to the point of less than one-half the capacity. Three possibilities were considered: (a) close the sanatorium and sell the institution (this was done at Trudeau Sanatorium, largely because of its isolation); (b) develop a nursing home; (c) develop a rehabilitation center. The third choice was selected by the board of managers. An affiliation was established with Yale University Medical School, 17 miles away. Joint staff appointments were arranged, with benefit to both institutions, but the real disadvantage is distance from the general hospital to the convalescent home. It is possible, however, for interns and medical students to take part of their training at the rehabilitation center, and convalescent patients can be transferred satisfactorily.

THAYER MEMORIAL HOSPITAL

Perhaps the best example of forethought and careful planning that I can present is the Thayer Memorial Hospital in Waterville, Maine. This is an acute illness hospital of some 63 beds. Waterville draws patients from a wide rural area. These people come from farms and small towns where the average per capita income is relatively low. The hospital initiated its service in 1931 in a converted residence. It established its new and modern building in 1952. In 1955 the average daily occupancy was 86.5 per cent, with an average length of stay of 5.7 days. The average expense per patient was $22.66 daily. It is a well appointed accredited hospital (fig. 1).

The second step in medical care planning was the establishment of the Mansfield Clinic. This general clinic, in 1955, had a total of 451 new patients, and 1,516 visits. In addition to the general clinic services for ambulatory patients, there are special services for crippled children, mental health, amputees, speech and reading clinics, and well baby services. In all there were 2,674 clinic visits during the year.

The third step has been the establishment of convalescent care service which is now in progress. It is essentially a facility for care of chronic illness in rehabilitable patients. It will have 34 beds and will be equipped to provide for all necessary rehabilitation needs, including social service. It is an integral part of the general hospital and of the clinic as well. It is under the same administration and medical supervision as the general hospital although in all probability it will have its own endowment. Duplication of many items of equipment are avoided through utilization of those of the general hospital; for example, nutrition service, nursing supervision, and general administration. The per capita per day costs should be materially lower than those of the hospital for acute illness, and the duration of stay of each patient will be much longer. Transfer of patients

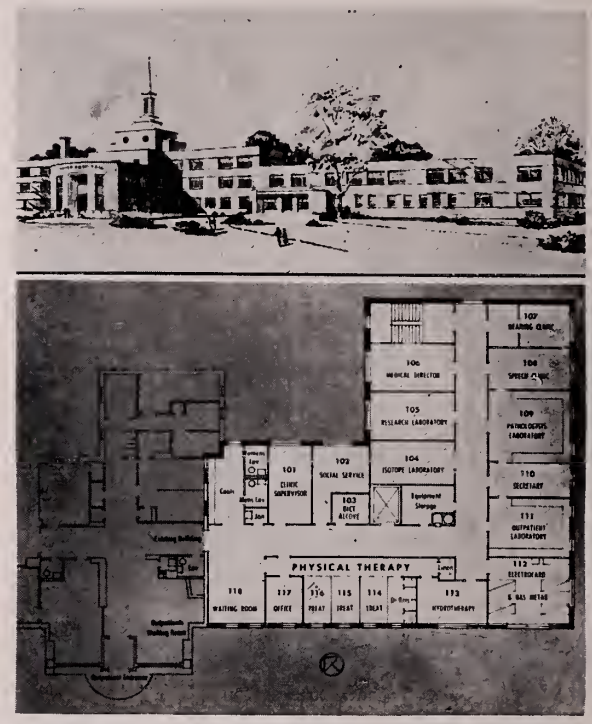


Fig. 1. An acute illness hospital, clinic, and home care service are combined with a unit for convalescent care and rehabilitation at Thayer Memorial Hospital, Waterville, Maine. The architect's drawing (above) and floor plans (below) are shown.

from (a) the general hospital to (b) the convalescent home to (c) the clinic can be handled with expedition.

The value of a community service of this type, which is organized and administered in this manner, is an excellent illustration of the thoughtful planning that is under way for the solution of one of our outstanding unmet needs in medical care in America.

CONCLUSION

I have presented a small segment of medical care administration that has not been carried out effectively in this country, and have indicated what the problem is and how it is being solved in some communities. As time goes by, more physicians—especially health officers—will take an active and increasingly effective part in the initiation and the development of communitywide plans for adequate health services.

Dr. Smillie, 105 East 22nd, New York 10.

Survey Of Facilities And Services Available to Elderly People In Texas

MEDICAL SERVICES COMMITTEE, TEXAS GERIATRICS SOCIETY

THE Texas Geriatrics Society thought a survey of the resources available to elderly patients in Texas would be helpful to its members and others; therefore, a Medical Services Committee was appointed in April, 1956, and asked to conduct a questionnaire survey.

Questions were designed to find out what facilities and services are available in Texas that offer elderly people opportunities for information, recreation, informal and formal education, work, vocational counseling, specially designed housing, services in their homes, and financial aid, as well as organized health and medical care.

The committee mailed 638 questionnaires to representatives of the following: county medical societies; community councils or United Funds; Texas State Department of Public Welfare, field offices and the state office; local and state health departments; known organizations concerned with aging such as committees and volunteer councils; Texas State Hospitals and Special Schools; Social Security Administration; Department of Health, Education, and Welfare; the three Texas medical schools and the two dental schools; the Texas Geriatrics Society (all members) and the American Geriatrics Society; local mental health societies and the Texas Society for Mental Health; and local offices of the Texas Employment Commission.

In the main, the 238 replies indicated that this type of resource is not dissimilar for the older age group. It is apparent that the large cities have been necessarily more concerned with organizations. Much of the data from smaller communities could be used only for statistics and are not helpful for our purposes. This material does signify that many private practitioners and private clinics and hospitals frequently contribute their services to persons in this age group. This is also true of local governments, religious organizations, and civic bodies. Frequently these act independently or together and often are informally organized to help the elderly. The most frequently mentioned was local groups organized to visit their own sick aged.

Members of the Medical Services Committee of the Texas Geriatrics Society are Dr. Frederick G. Dorsey, Houston, chairman; Dr. Elizabeth Gentry, Austin; Dr. Henry A. Cromwell, Houston; Dr. Normabelle Conroy, San Antonio; and Dr. Wendell D. Gingrich, Galveston.

STATEWIDE FINDINGS

In general, in communities having committees, special councils, or councils of social agencies or United Funds, these organizations serve as information centers to give data about facilities and services for the older persons as well as other age groups. A few of the larger cities have special committees or councils for continuing study of the problems of the aging population. In the smaller towns the Texas Employment Commission or the Vocational Rehabilitation Division of the Texas Education Agency and/or the Department of Public Welfare were usually named in this survey as fulfilling this community function.

Golden Age Clubs or similar clubs are reported in many communities; namely, Abilene, Austin, Baytown, Beaumont, Brownsville, Corpus Christi, Dallas, Denton, El Paso, Floydada, Fort Worth, Galveston, Houston, Lamesa, Lubbock, Midland, Monahans, Nacogdoches, Orange, San Antonio, Texarkana, Victoria, Wichita Falls. Day centers are reported in Austin, El Paso, Pampa, Stephenville, Temple, and Waco. Numerous organized programs are sponsored at frequent intervals for older citizens by churches, welfare agencies, and the like. Those given by name were Rosemary Annual Party at Spur and Glamorous Sixties Adventure Club at Denton.

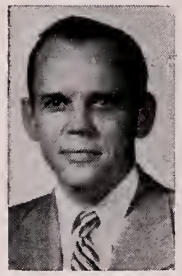
The questionnaire's request for information regarding organized home care programs and outpatient medical services for no-pay or part-pay persons of this age group was usually answered in the smaller communities as being available from volunteer private physicians or local public health departments. In the larger cities, the city-county or city-county hospitals and outpatient departments were named. It was not ascertained as to how many persons were provided these services.

The Texas State Department of Health furnishes upon request a directory of nursing homes, including those providing custodial or attendant care, licensed by the department. These homes are listed by county. The name of the home and the address is given as well as the owner or manager and the capacity in number of beds. This directory is published periodically. Homes for the aged are not necessarily

included in the listing but appear to be well known locally.

The Board for Texas State Hospitals and Special Schools has no facilities available for the treatment of older persons other than those who have been committed to one of our mental institutions by legal court procedures. Facilities do not exist under the jurisdiction of the board for the medical, surgical, and nursing treatment of the aged nonpsychotic person.

The State Commission for the Blind offers a home teacher service to blind adults. The purpose of this service is to assist blind persons in their social and personal adjustments through the use of counseling and occupational therapy and through the provision of instruction in the use of tools and the development of skills which will enable the blind to meet more fully the needs of day to day living. Home teachers are found in Amarillo, Dallas, Fort Worth, Houston, Lubbock, San Antonio, and Waco. Another



Dr. Frederick G. Dorsey of Houston, chairman of the Texas Geriatric Society's Medical Services Committee, and other members of the committee presented this report for the Texas Geriatrics Society April 30, 1957, in Dallas.

Of 638 questionnaires sent to various persons throughout the state, 238 replies indicated that resources for elderly people in Texas are not dissimilar from the facilities and services for other age groups. Statewide findings from the survey are discussed, and opportunities for the aged in a dozen of Texas' largest cities are considered in more detail.

service which is offered by this agency to blind adults of all ages is the distribution of talking book machines. It also administers the state-federal supported vocational rehabilitation programs for the blind in Texas. A person to be eligible for vocational rehabilitation services must have the mental and physical capacity which with the aid of these services will enable him to hold full time employment.

The Texas Education Agency, Vocational Rehabilitation Division, is a state agency which helps people who have a physical or mental impairment which has affected their abilities to earn a living. This service is intended to restore a person to gainful employment by means of such services as (1) medical care, (2) vocational training, and (3) counseling and guidance. There is no age limit.

The Texas Employment Commission has a statewide service administered through local offices. The placement of older workers is an integrated part of the total placement program. The older worker receives the same opportunities for referral to job openings as any other worker based on his existing skills, knowledges, abilities and potentialities. Older workers who have a distinct employment problem because of physical disabilities or physical handicaps, or because their formal skills are now obsolete in the present market, or because they are now reentering the labor market after a period of inactivity are referred to trained employment counselors. These counselors then concern themselves with exploring employment potentialities of the worker and attempting to guide him into areas of best possible job opportunities in relation to all of his assets. If the person is in need of additional training, specialized medical services, welfare, or other social services, he is referred by the counselor to the appropriate organization or agency in the community.

The University of Texas Medical Branch Diagnostic Clinic and the John Sealy Hospital in Galveston function as a general hospital system for part-pay patients referred by Texas physicians. The M. D. Anderson Hospital and Tumor Institute in Houston serves in a somewhat similar way for those having suspected or established malignant disease. Older persons having tuberculosis may receive hospitalization through the state tuberculosis hospital system.

Financial assistance to those unable to work full time because of age is available through the public welfare program of the state of Texas.

For various reasons certain opportunities have been dealt with on a statewide basis, as has been discussed, but it is apparent that only densely populated areas have found it necessary to provide many of these opportunities. In West Texas there has been a regional effort known under the original name of West Texas Regional Committee on Older Adults. Several regional and local round-table discussions of the problems of older citizens have been held. The Texas Technological College in Lubbock, with the West Texas Council on Adult Education, has been active in this field and has published reports of these conferences and brochures of its programs.

LOCAL FACILITIES

The largest cities will be considered in more detail.

Amarillo.—Amarillo has a Senior Citizens Organization under the adult education program. The senior citizens have a volunteer council utilizing older citizens.

Austin.—The Adult Services Council in Austin is the community organization which acts as an information source as well as a working body. It has conducted a detailed survey of the nursing home problems in Austin and has worked closely with the

city health department in improving the nursing homes of the county. The council plans to publish a directory of the facilities and services for old people available in Austin.

Beaumont.—Information about facilities and service for old people in Beaumont is obtained through the central index sponsored by the Community Council. The Community Council published an over-all community resources directory in 1956.

Corpus Christi.—The Nueces County Medical Society's Advisory Committee on Chronic Care serves as a community organization for the aged in Corpus Christi. Information about facilities and services for older persons is obtainable through the Memorial Hospital Social Service, City-County Welfare Department, the Family Service Bureau, and the State Department of Public Welfare. It is reported that an air conditioned 62 bed nursing home with 45 additional custodial beds was being constructed adjacent to the city-county hospital at the time of the reply to the survey. Delmar University includes older citizens in its educational program.

Dallas.—The Division on Aging, Council of Social Agencies of Dallas, acts as the community committee specially interested in the aged. Information about facilities and services for older people is obtainable through the E. D. Farmer Foundation for the Aged. A section in the Council for Social Agencies' health and welfare directory lists services for aged people. Educational programs for older citizens are available from several sources. The home for Jewish aged has a program specifically for older people. There are college courses at the Dallas Public Evening School, the YMCA, and the YWCA, which include some persons over 65 years. Dallas College has 20 special scholarships for persons over 65 years of age. The E. D. Farmer Foundation, Family Service Association, the Jewish Family Service, and the State Department of Public Welfare all offer family counseling for older citizens and their families. Retirement or preretirement counseling is reported in some few large firms (Chance Vought Aircraft, American Airlines, Swift and Company). A limited number of old people are offered opportunities of sheltered work in the Goodwill Industries. There is a Visiting Nurse Association which provides bedside nursing care at home, and older persons are included in their clientele. The Visiting Nurse Association has three homemakers to serve persons of all ages in the entire city.

El Paso.—El Paso has a Community Services Council which has an information service and a directory. Goodwill Industries has an outlet shop for sale of articles made at home or in the sheltered workshop, and has part time placements for older citizens.

Fort Worth.—In Fort Worth the Volunteer Center of the Community Council utilizes older citizens as volunteers. Information is obtained from the Community Council. This area has an organized home care program with a part time physician and full time nursing from the City Nursing Division and the County Nursing Division of Tarrant County. Goodwill Industries is represented in Fort Worth. Family counseling is available from the E. D. Farmer Foundation as well as the Family Service Association. At the time of the survey the Community Council was organizing a Committee on Aging.

Galveston.—In Galveston information is obtainable through the referral service of the Family Welfare Agency. A community resources directory has been published.

Houston.—Houston has a community committee on aging known as the Community Council Committee on Aging. Volunteer Community Service is an organization utilizing older citizens and giving service to them. The Health and Welfare Information Service of the Community Council and the Welfare Department of the Council of Churches have information centers for facts about facilities and services for older people. Recently a directory called "Over 60?" was published giving specialized services and facilities for older persons in Harris County. Sheltering Arms offers friendly visiting to older people in their homes and also has a foster home care program for older people. Jewish Family Service and Sheltering Arms offer family counseling for older citizens or their families. The Harris County Medical Society has a Geriatric Committee. The Houston Chamber of Commerce has a Committee on the Problems of Aging, and the Jewish Community Council of Houston has an active group interested in older persons and sponsors an annual conference on aging. There are outlet shops for sale of articles made at home at the Ripley House and Mary Dell Flagg Opportunity Club. Vocational counseling and rehabilitation for older citizens is available through vocational service. There are a number of preretirement and retirement programs in industry in this area, and one large company has a full time psychologist in charge of its program.

San Antonio.—The San Antonio Recreational Council utilizes older citizens as volunteers. This council acts as an information center and has published a directory. The Neighborhood Settlements includes an educational program for older citizens. San Antonio has planned a large low cost housing project for elderly people. Marie C. McGuire is executive director of the Housing Authority of the city of San Antonio.

Texarkana.—The Community Chest sponsors a visiting nurse who is available to older citizens and others in Texarkana. The Community Services Council includes opportunities for older citizens and has

information available for them. This community has a Visiting Nurse Association. The Bowie County Medical Society Tumor Clinic has some patients in this age group.

Waco.—In Waco the community committee is known as the Division of Services to the Aging of the Council for Social Welfare. There is a day center in Waco known as the Louis Migel Center. There is an outlet shop at the YMCA for sale of articles made at home.

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Differential Diagnosis Between Cardiac and Pulmonary Dyspnea

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DYSPNEA may be defined as consciousness of breathing that is difficult or distressful. It is, of course, a phenomenon that occurs on severe exercise in normal people; our concern with it, however, is its occurrence at a level of activity at which normal persons are not short of breath. Many mechanisms may be involved—apprehension, pain, mechanical hindrance to respiratory movements, intrinsic disturbances of the pulmonary apparatus or the circulation, and disturbances of the biochemical and reflex factors controlling respiration.

It should be remembered that dyspnea is a subjective symptom, and therefore it will vary from person to person depending on his awareness of the sensation. This awareness will be affected by the extent to which the patient may be accustomed to the symptom. Thus the patient with chronic emphysema may not notice difficulty in breathing which would be very distressing to those subject to episodic attacks of pulmonary edema or bronchial asthma. It also will be affected by the degree of anxiety that it creates. For example a paitent with heart disease who has been queried many times by his doctor as to whether or not he suffers from shortness of breath and who has a natural anxiety about his cardiac status will be much more aware of any breathing difficulty than will a person who is unconcerned about his health.

From the Thorndike Memorial Laboratory, and the Second and Fourth (Harvard) Medical Services, Boston City Hospital, and the Department of Medicine, Harvard Medical School.

TESTS OF PULMONARY AND CARDIAC FUNCTION

Many tests that are useful in evaluating pulmonary function and in helping to assess the cause of dyspnea are readily available to doctors in office practice and do not require elaborate apparatus or complicated techniques. Such tests for the most part measure ventilatory capacity, that is, the volume and rate of movement of air into and out of the chest at rest or during effort. Others measure intrapulmonary distribution of the inspired gases, or the diffusing capacity of the pulmonary membrane between the alveoli and the pulmunary capillaries.

Among the ventilatory tests the determination of the vital capacity is known to all physicians. This, of course, represents the maximum volume that a person can exhale after maximal inspiration. What is not fully appreciated is that much more useful information can be obtained by a timed vital capacity, that is, the percentage of the total vital capacity that can be delivered within a period of one, two, or three seconds. The normal person will exhale at least 75 per cent of his vital capacity the first second, 85 per cent by the end of the second second, and 95 per cent within three seconds. The vital capacity can be subdivided into the inspiratory capacity, the tidal volume, and the expiratory reserve volume. The remainder of the total lung capacity, the residual volume, is that which remains in the lungs after the patient has forcibly exhaled. To determine this volume more complicated tests are required which are not available to most physicians.

Further information can be obtained by an inspection of the spirographic breathing pattern which can be recorded on an ordinary basal metabolism machine. Hyperventilation and irregular breathing can be observed easily, and of particular interest is a progressive elevation of the pulmonary midposition—the volume of air in the lungs at the end of a normal expiration—during rapid breathing. In clinical states that cause such "air trapping" as asthma or emphysema, there is a progressive increase in this midposition on effort.

Fluoroscopic observation of the patient during quiet and forced breathing often provides much helpful information. Fixation of the thoracic cage and limitation of diaphragmatic motion can be assessed and "air trapping" on forced expiration may be observed, all signifying impairment of ventilation.

The maximum breathing capacity can be relatively easily measured by one of several techniques. This is the maximum amount of gas which a person can hyperventilate voluntarily in liters per minute.

Intrapulmonary gas distribution can be measured by methods which determine the rate of mixing of a gas such as helium with the lung gas or by the determination of the thoroughness of rinsing of pulmonary nitrogen from the alveoli during a specified interval of oxygen breathing. Normally the inspired air must reach all the alveoli at the same time and in the same concentration. In many pulmonary diseases which show obstructive ventilatory insufficiency, inspired gases are unevenly distributed to various parts of the lungs.

The diffusion of gas across the alveoli capillary membrane also can be measured. This depends on the pressure differences of the gas on the two sides of the membrane, on the density of the gas, and on the solubility in that membrane. If there is some impediment to the passage of gas across the alveolar membrane, then the pressure of oxygen in the alveoli will be considerably higher than that which reaches the pulmonary capillaries. Since carbon dioxide is 21 times more soluble in the pulmonary membrane than oxygen, a significant blood diffusion barrier to carbon dioxide cannot exist without a fatal block to oxygen transfer. Carbon dioxide retention and respiratory acidosis never result from diffusion difficulties but always from abnormalities in ventilation or distribution.

Dr. Laurence B. Ellis, associate clinical professor of medicine, Harvard Medical School, presented this paper for the Section on Internal Medicine at the annual session of the Texas Medical Association in Dallas, April 29, 1957.

The mechanisms by which dyspnea is produced in both pulmonary disease and cardiac disease are covered in respect to various pulmonary function measurements, including abnormalities in ventilation, impairment of diffusion, pulmonary hypertension, increased work of breathing, and the specific effect of changes in blood flow.

The oxygen tension in the arterial blood also can be measured, although more commonly the less exact measurement of arterial oxygen saturation is carried out. This may be reduced for a number of reasons, either because of insufficient gas pressure in the inspired air, or because of underventilation, or mechanical obstruction to air flow, or to improper distribution when certain alveoli are perfused with blood but are not being properly ventilated, resulting in what is equivalent to a right to left shunt of venous blood, or to anatomic vascular shunts permitting venous blood to by-pass the lungs, as in congenital heart disease, or finally to the alveolar-capillary block syndrome in which there is impairment of diffusion across the alveolar membrane. If the measurements of arterial oxygen tension are carried out at exercise and also after breathing 100 per cent oxygen, significant added information can be gained. Exercise tends to accentuate the reduction of arterial oxygen tension due to underventilation from whatever cause, and breathing 100 per cent oxygen tends to remedy it at least to some extent. If the anoxemia is due to right to left shunts by-passing the lungs, then the breathing of oxygen is less likely to show any significant change in the arterial saturation of oxygen.

In addition to the various tests of pulmonary function that have been mentioned, there are certain specific tests dealing with the hemodynamics of the circulation that on occasion are very helpful. Chief among these are catheterization of the heart, either of the right or the left side. From such catheterization procedures the blood flow or cardiac output can be determined as well as pressure changes within the heart itself and in the pulmonary circulation. Catheterization studies are also useful in making a diagnosis of various types of congenital heart disease, particularly those with left to right shunts.

DYSPNEA OF PULMONARY DISEASE

Shortness of breath resulting from primary disease of the lung will be discussed first, because in these disorders there is a much better correlation between dyspnea and abnormalities of various pulmonary function tests than in patients with cardiac dyspnea. In the first place it can be said, as a more or less general rule, that dyspnea of pulmonary origin will occur when the breathing requirement at a given level of activity approaches about one-half of the maximum capacity to breathe, in other words when the breathing reserve is less than 50 per cent. Hence, the symptom will develop whenever there is a marked diminution in breathing capacity, a marked increase in breathing requirement, or a combinaton of both.

DECREASE IN BREATHING CAPACITY

Restrictive Ventilatory Insufficiency.—Restrictive disease of the lung results from loss of functioning pulmonary tissue, as in extensive fibrosis, after pulmonary resection, by the encroachment by a pleural effusion or marked cardiac enlargement, by severe chest deformity, and in respiratory neuromuscular disease such as poliomyelitis or myasthenia gravis. In this type of insufficiency the capacity to breathe de-

creases in proportion to the amount of lung tissue lost or to the amount of damage to the involved muscles. A reduction is seen in all compartments of the lung volume; that is, both the vital capacity and the residual volume are reduced. The reduction in vital capacity is usually well correlated with the degree of dyspnea.

Obstructive Ventilatory Insufficiency.—In contrast to the static disturbance of ventilatory function seen in restrictive disease, the important element in obstructive disease is difficulty or delay in moving air in and out of the lung, particularly during effort. The site of the obstruction may be in the major airways, as with major bronchial obstruction due to a tumor, or it may be of the bronchiolar type as in bronchial asthma or emphysema. Since the important element in the disturbed pulmonary function is an increased airway resistance, causing a delay or difficulty in moving air out of the lungs, there is poor correlation with volumetric tests just mentioned and the disturbance is best detected by dynamic tests. For example, there may be relatively small reduction in the total vital capacity, but the timed vital capacities—the proportion of the total vital capacity registered in one, two, or three seconds—and the maximal breathing capacity become progressively reduced. The physical effort of accomplishing expiration is increased, and this can be measured by special tests. There is also an increase in the functional residual capacity, and this results in defective distribution of gas within the lungs. In conditions of this type underventilation of the alveoli may produce respiratory acidosis with hypercapnia and elevated carbon dioxide tension in the blood. Such patients also may have a decreased arterial oxygen saturation, and this may be accentuated during exercise in contrast to the reaction of normal persons in whom exercise results in an increase in the arterial saturation. However, if such patients breathe 100 per cent oxygen, the oxygen pressure in the alveoli usually increases significantly. In contrast is the arterial anoxemia which exists when some of the blood by-passes the lungs entirely in going from the right to the left side of the heart or perfuses unaerated lung tissue, which is not affected significantly by the breathing of pure oxygen.

INCREASED BREATHING REQUIREMENT—HYPERVENTILATION

Certain types of hyperventilation are metabolically justified. For example, in hyperthyroidism the demand for oxygen rises with the increased metabolic activity and hence the need to ventilate is increased in proportion. We are concerned here, however, with metabolically unjustified hyperventilation. This is almost always due to one of two causes.

First is excessive stretch reflex stimulation from the lungs typically seen in pulmonary fibrosis. It has long been known that a complex pattern of respiratory reflexes controls the inspiratory and expiratory breathing mechanisms which are usually adjusted so that the rate and depth of breathing is adapted to that rhythm which is most economical in terms of the actual work of respiration. Stiffening of the lung tissue results in more work of breathing and hence tends to initiate the expiratory phase of respiration earlier with resulting shallow breathing which must be rapid if there is an increase in ventilatory demand. Rapid shallow breathing is distressing, and in addition it is inefficient because of the waste effort involved in the frequent washing out of the respiratory dead space.

The second type of hyperventilation is seen if the pulmonary capillary oxygen tension is low. This occurs normally at high altitudes and abnormally when there is alveolar-capillary block or impairment of diffusion of oxygen from the alveoli into the lung capillaries. Such a disturbance in diffusion may possibly be a factor in the dyspnea of many patients with severe mitral stenosis and is also seen in various types of primary pulmonary disease, particularly the granulomatous diseases. In such conditions the patient hyperventilates in an effort to make his alveolar oxygen pressure more nearly the same as the room air oxygen pressure and thus to provide a bigger oxygen gradient or push for the oxygen to penetrate the membrane. Such patients characteristically hyperventilate and have a large alveolar-arterial oxygen pressure difference. The greatest degrees of hyperventilation are seen in patients of this type. Moreover, since they hyperventilate so greatly and since carbon dioxide diffuses 21 times more easily than oxygen, they characteristically have a respiratory alkalosis because too much carbon dioxide is blown off. They do not develop carbon dioxide retention and respiratory acidosis.

Many patients with pulmonary disease show in varying degrees combinations of the types of ventilatory insufficiency discussed, but a careful clinical evaluation plus selected pulmonary function tests usually suffices to give an accurate answer as to the cause of their dyspnea. As will be shown, patients with cardiac disease also exhibit the various types of ventilatory insufficiency previously discussed, but in addition they have other specific circulatory factors contributing to their shortness of breath.

DYSPNEA DUE TO HEART DISEASE

In contrast to pulmonary disease the dyspnea of heart disease is more difficult to correlate with tests of pulmonary function. Indeed on careful analysis it often appears that the "dyspnea" of cardiac patients,

especially of those with mitral stenosis, is not so much shortness of breath as breathing fatigue. Nevertheless, in heart disease even more than in lung disease, the complaint of dyspnea is the paramount symptom of a failing compensation.

IMPAIRED BLOOD FLOW

As cardiac reserve lessens the maximum cardiac output frequently diminishes until a point is reached when the maximum blood flow is being developed at rest. On effort with its increased oxygen demand no increase is possible. This progressive limitation of the ability to increase blood flow as oxygen consumption rises produces anoxia in the exercising muscles, including the muscles of respiration. There is an accumulation of metabolites in these muscles, fatigue results, and all work, including breathing, becomes increasingly an effort.

DISTURBANCE IN PULMONARY CIRCULATION

Physiologic studies, however, have clearly indicated that the impairment of blood flow is an inadequate explanation of the degree of dyspnea that occurs in the decompensated cardiac patient. Other factors are involved. With left-sided heart failure there is an elevated blood pressure throughout the pulmonary circulation, together with distended pulmonary vessels. Such hypertension and congestion markedly alter the distensibility of the lung and increase the work of breathing. The pulmonary air spaces are encroached upon, resulting in an interference in ventilatory function of the restrictive type. However, such interference with ventilatory function in severely crippled cardiac patients is usually less than in comparably handicapped patients with lung disease, and these disturbances of function are not alone adequate to explain the difficulty in breathing.

Patients with the most severe grade of heart disease, patients who have marked hydrothorax or whose diaphragms are markedly elevated by ascites and who have very large hearts, all have an increasing degree of a restrictive ventilatory defect.

The sequence of events leading to dyspnea in patients with heart disease as they become progressively disabled therefore may be described in the following terms. Patients only slightly disabled by dyspnea would be classed as class 2 of the American Heart Association classification. They have slight impairment of both total and timed vital capacities, and their maximum breathing capacities still may be within the normal range. The expiratory reserve volume may be slightly increased because of a slight degree of functional emphysema resulting from some stiffening of the lungs. The work of breathing probably has begun to increase a little. They have no difficulty in intrapulmonary gas distribution and no impairment of diffusion of gas across the alveolar membrane. The dyspnea in these people is chiefly the result of an inability to accomplish a maximum increase in cardiac output on exertion resulting in earlier fatigue of the respiratory muscles coupled with the fact that they are beginning to have to do more work to accomplish a given respiratory effort.

As dyspnea increases, in class 3 patients, all of the previously described tests show a greater degree of abnormality but still much less than in comparable patients with primary pulmonary disease. In these class 3 patients the inadequate blood flow is more manifest and at the same time the lungs are getting more and more congested and ventilatory insufficiency is beginning to develop. When class 4 patients, mostly patients in overt congestive failure, are studied, we have an exaggeration of all of these findings, but since these patients as a group tend to have larger hearts and frequently have hydrothoraces, they may show some decrease in the total lung capacity. For the most part, however, patients even in this group show no difficulty in intrapulmonary gas distribution. Patients who are severely disabled by dyspnea may show at times a great deal of difficulty in the diffusion of gases across the alveolar membrane. As stated this tends to lead to hyperventilation as a mechanism of raising the oxygen tension in the alveoli. This, of course, further contributes to the amount of dyspnea that is present. Most patients with dyspnea from cardiac failure do not hyperventilate on exercise. If they do hyperventilate, it may well be an indication of the presence of alveolar-capillary block.

Many patients, of course, have combinations of cardiac and pulmonary disease. These may be etiologically related as in cor pulmonale, where heart failure may supervene in patients who have sustained pulmonary hypertension on the basis of pulmonary fibrosis or emphysema. Or, there may be unrelated heart and lung disease, particularly in older people in whom obstructive emphysema or asthma often coexist with arteriosclerotic heart disease. The various ventilatory tests described are particularly useful in differentiating the cause of the shortness of breath in patients of this type.

Specific tests of cardiac function may be helpful also in such situations. Catheterization of the right side of the heart will show whether pulmonary hypertension and increase in pulmonary vascular resistance exist to a degree which may help explain the breathing difficulty. From catheterization of the left side of the heart it is often possible to estimate the degree of mitral and aortic stenosis as well as the existence of failure of the left ventricle.

PSYCHOGENIC FACTORS IN DYSPNEA

One must not forget that consciousness of breathing and disturbances in the respiratory rhythm are among the most common manifestations of anxiety neurosis and neurocirculatory asthenia. Moreover, paitents with heart disease are prone to have an added factor of such anxiety reaction grafted on the organic substratum of their disease which may explain their symptoms entirely or in large part.

COMMENT

In many, perhaps most, patients with dyspnea, the factors involved are multiple and interrelated; they often lead to acute attacks, as in pulmonary edema of cardiac origin, which can be prevented or broken up by a therapeutic attack at any one of several points.

The clinical evaluation of dyspnea is often simple and can be reached by a clinical estimate of the patient, including adequate history and physical examination, and easily performed tests. Occasionally more elaborate functional studies of the heart or lungs are necessary in order to determine the nature of the dyspnea. This is particularly true when the clinical picture is complicated, as in a combination of emphysema and chronic heart disease, or when the dyspnea is out of proportion to the clinical evidence of disease, as in a patient with mild mitral stenosis and severe dyspnea caused by an anxiety neurosis.

SUMMARY

The physiologic mechanisms underlying the production of the clinical symptom of dyspnea in pulmonary and in cardiac disease are described. Various tests of pulmonary and cardiac function are outlined and their usefulness in differential diagnosis is discussed.

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Considerations In the Management Of Certain Cardiac Arrhythmias

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IN THIS rather brief presentation of a broad subject attention is directed for the most part to the more common arrhythmic disturbances and the more cardinal features concerning diagnosis and therapy of each.

The etiologic and pathogenetic mechanisms evolving the ectopic rhythms are manifold: tobacco, coffee, alcohol, peptic ulcer disease, biliary tract disease, fatigue, emotional states, surgery, anesthesia, drugs, electrolyte disturbances, coronary artery disease, infections, pregnancy,[18] and cardiac catheterization.[14]

Despite an increase in the pharmacologic armamentarium for the management of ectopic rhythms, considerable controversy is still present in various localities. This unfortunate situation has done little for the dilemma of the practitioner who is often faced with the problem of quickly and successfully terminating an arrhythmia. It is important to realize that not all the arrhythmias require treatment. On the other hand many of the arrhythmias constitute emergencies and require prompt and often lifesaving measures.

METHODS OF MANAGEMENT

Most of the cardiac arrhythmias can be managed by one or a combination of the following: sedation, carotid sinus pressure, digitalis, quinidine, and Pronestyl.[10] Sedation has been emphasized in recent years. The evidence in its support is becoming more and more convincing. Barbiturates distinctly reduce the tendency of the heart to develop ectopic rhythms.[17] It is perhaps through suppression of noxious hypothalamic stimuli that sedation is effective therapy. Experimental studies lend support to hypothalamic influences upon cardiac rhythm: Intraventricular administration of drugs into the third ventricle of unanesthetized dogs results in many of the arrhythmias that are seen as manifestations of cardiotoxicity of the

respective drugs[19] (strophanthin K and quinidine). The same drug dosage administered intravenously had little or no effect on the electrocardiogram. Quinidine intraventricularly blocked or modified the effect of intraventricular strophanthin. Hexamethonium given intravenously successfully blocked the effect of intraventricular strophanthin and quinidine. Intravenous Pronestyl, quinidine, and sodium Nembutal were effective in terminating or modifying the effects of intraventricular strophanthin. Also interesting is an experiment in which intravenous Dilantin successfully abolished ouabain-induced ventricular tachycardia in unanesthetized dogs.[15]

Carotid Sinus Pressure.—Carotid sinus pressure is about 80 per cent effective in paroxysmal auricular tachycardia.[3] It is also useful as a diagnostic aid in auricular flutter; here it suppresses ventricular activity by increasing the degree of auriculoventricular block thereby exposing the flutter waves more clearly. It is of no diagnostic help, however, in instances of flutter with 1:1 conduction. The diagnosis of these rather rare cases of 1:1 flutter is suggested by the very rapid ventricular rate of 225 to 370 per minute.[4] Carotid sinus pressure is helpful in distinguishing paroxysmal auricular tachycardia with auriculoventricular block from auricular fibrillation.[12] Here again the degree of auriculoventricular block is increased bringing out the nonconducted P waves. The effect of carotid sinus pressure is augmented by digitalis and Prostigmin. Approximately one-fourth to one-third of the dose needed for digitalization is effective in increasing the effectiveness of carotid sinus pressure. Carotid pressure is rendered less effective by sympathomimetic drugs, quinidine[3] and Demerol.[5]

Ocular Pressure and Emetics.—Ocular pressure is effective in some instances of paroxysmal auricular tachycardia, but is failing in popularity because of the danger of retinal detachment[17] and other potential ocular injuries. Ipecac as an emetic is effective in some instances of paroxysmal auricular tachycardia, but is also waning in popularity because (a) it tends to obtund the oral route for further therapy, (b) it aggravates the condition of an already ill patient, and (c) the vomiting produced may be prolonged. The use of apomorphine is now rare and may be harmful.[3]

Drugs for Special Circumstances.—Useful under special circumstances are Neosynephrine, methoxamine (Vasoxyl), Prostigmin, ipecac, potassium salts, antihistamines, and acetylcholine. Mecholyl is regarded as a dangerous drug, certainly never to be used in the home.

Dr. James W. Tunstill, Fort Worth internist, presented this paper for the Section on General Practice at the annual session of the Texas Medical Association in Dallas, April 29, 1957.

The therapeutic armamentarium useful in paroxysmal cardiac arrhythmias is increasing, but divergent views on therapy remain. Not all the arrhythmias require treatment, but prompt therapy in others may be lifesaving. Digitalis appears to be the most universal drug for the arrhythmias with quinidine a close second.

TYPES OF ARRHYTHMIAS

Paroxysmal Auricular Tachycardia.—Of all the paroxysmal tachycardias certainly auricular paroxysmal tachycardia is the most therapeutically controversial. Simple measures should be utilized first before proceeding with those in controversy. In the first category are carotid sinus pressure, gagging, and the Flack maneuver—either separately or in combination, utilizing a bystander as an assistant. Beyond this stage begins a myriad of other methods. Bellet[3] has expressed favor next for the use of Prostigmin intramuscularly followed by an additional attempt at carotid sinus pressure. Prinzmetal has proposed as an alternate next step the administration of 3 grains of Nembutal with 6 grains of quinidine and waiting a few hours.[16] Either of these techniques is good, the choice depending on the situation. Katz has taken a more vigorous view in declaring quinidine the drug par excellence, but has conceded to digitalis in some instances.[8] Digitalis has been considered by Levine[11] to be the treatment of choice if simpler means of vagal stimulation have failed. This last view is the one most popularly held. Cedilanid is the digitalis preparation most frequently used in arrhythmic therapy.[16] Digitalis is about 88 to 90 per cent effective. The intravenous or intramuscular use of Cedilanid depends on the situation, but is more commonly used intravenously. Initially 0.8 mg. should be given followed by 0.4 mg. doses at two hour intervals if necessary. After each dose carotid sinus pressure should be applied because of the enhancement of this reflex by digitalis. If digitalis fails then quinidine, Pronestyl, Neosynephrine, and acetylcholine may be tried in this respective order. Mecholyl is decidedly too dangerous for use except under exceptional circumstances. The exact place of Neosynephrine and other sympathomimetic amines is not well delineated in the literature. The simplicity of Neosynephrine is naturally conducive to its use; however, Katz,[8] Bellet,[3] and Prinzmetal[16] definitely have not considered it the treatment of choice. Probably its use had best be limited to very stubborn attacks or in frequently recurring episodes which are not prevented by the usual prophylactic measures. Prinzmetal has recommended

the use of pressor drugs if shock is an associated finding.[16] Quinidine, Pronestyl, and digitalis may all be tried prophylactically for recurrent attacks. All underlying causative factors should be eliminated if possible. Thoracic sympathectomy may be necessary in stubborn cases.[20]

Paroxysmal Auricular Tachycardia with Auriculoventricular Block.—Paroxysmal auricular tachycardia with auriculoventricular block is often seen in instances of hypopotassemia, in digitalis intoxication, and in combination form with subclinical overdosage of digitalis when conditions are present that result in loss of potassium. Such loss may occur through diuresis, vomiting or diarrhea, use of steroids, and so forth. An ideopathic variety has been reported by Lown and Levine[12] which is a benign condition requiring no treatment. Carotid sinus pressure aids in the diagnosis of this arrhythmia since it may simulate closely auricular fibrillation. The management comprises the use of intravenous potassium chloride, but Pronestyl is also similarly effective. Hearts so afflicted from digitalis intoxication are usually seriously diseased (Levine), and mortality rates in excess of 50 per cent are not uncommon. The diagnosis should always be suspicioned in cases of refractory congestive heart failure, hypopotassemic states, and with an increase in heart rate with the administration of digitalis.

Auricular Flutter.—Auricular flutter occurs almost exclusively in diseased hearts except in certain unusual cases with paroxysmal 1:1 conduction.[4] In my experience it is not unusual to observe cases of impure flutter or flutter-fibrillation precipitated by febrile conditions (pneumonia, genitourinary infections) in cardiac patients who have normal sinus rhythm ordinarily and who are relatively asymptomatic prior to the abrupt onset of the arrhythmia. Elderly patients afflicted with paroxysmal auricular flutter with rapid ventricular rates more or less characteristically have a complete change of facial expression which assumes somewhat the mask facies of Parkinsonism. They are usually observed to be restless and their entire clinical picture changed. Auricular flutter is relatively rare in children and, when present, usually associated with congenital heart disease with atrial septal defect or fibroelastosis. Carotid sinus pressure is a definite aid in the diagnosis. Quinidine should never be used initially in therapy because of the likelihood of producing the dangerous 1:1 auriculoventricular conduction. This same consideration should be given to meperidine (Demerol) which has a quinidine-like action. In my experience these patients tend to exhibit an unusual sensitivity to morphine also and may develop Cheyne-Stokes breathing precipitously. In management digitalis should be used initially followed by quinidine and Pronestyl if digitalis fails. Digitalis produces normal sinus rhythm in 80 to 85 per cent of the cases and auricular fibrillation in the other 15 to 20 per cent.

Auricular Fibrillation.—Auricular fibrillation is usually associated with hypertension, arteriosclerotic heart disease, and rheumatic heart disease, but occurrences in normal hearts are not infrequent. In idiopathic cases thyrotoxicosis should always be kept in mind. A valuable diagnostic aid in this condition is found in the electrocardiogram where the T wave contour is seen to be constantly changing, even when all the QRS complexes look alike. Instances of auricular fibrillation with slow rates and no congestive failure usually require no treatment. Fibrillation associated with embolism constitutes an emergency for conversion to normal sinus rhythm.[16] Such conversion frequently prevents further embolization. In consideration of cases for conversion it is well to consider the etiology, duration, symptomatic status, and degree of cardiac enlargement. Cases requiring large doses for conversion refibrillate easily. Postcomissurotomy development of fibrillation is frequently difficult or impossible to convert.[9] The usual management of fibrillation is digitalis, followed by quinidine and/or Pronestyl as the occasion indicates. Digitalis often results in sinus rhythm in the paroxysmal type. Usually best results in conversion are obtained by the use of quinidine administered at two hour intervals for 5 doses, increasing the amount daily. Hellman and others[6] have recommended switching from digitalis to quinidine in cases with shock and rapid rates if the ventricular rate is not slowed within 30 to 60 minutes.

Preoperative Patients.—It is important that all patients subject to attacks of rapid ectopic rhythms be given digitalis prior to surgery. Similarly it is important to attempt conversion in all instances of flutter during the preoperative period. It is not necessary to convert all cases of auricular fibrillation.[7] Correction of all electrolyte disturbances, especially potassium, should be accomplished.

Ventricular Tachycardia.—Ventricular tachycardia is most frequently associated with myocardial infarction, and the imperativeness of treatment is generally appreciated. Cases of bidirectional ventricular tachycardia are often due to digitalis and often terminate fatally.[3] Pronestyl is probably the best first choice drug in therapy. Next are quinidine, magnesium sulfate, potassium salts, or intravenous Benadryl. The intravenous use of either Pronestyl or quinidine had best be reserved for the more critical situations. A monitoring electrocardiogram always should be used in treating this condition. Intramuscular Pronestyl, 1 to 2 Gm., with doses repeated in three to six hours has been recommended. Quinidine administration, oral or intramuscular, in doses of 0.4 to 0.6 Gm. every one to two hours for 5 to 8 doses also has been advocated. Electrocardiographic monitoring is necessary before each dose.

Pseudoventricular Tachycardia.—Often confused with ventricular tachycardia are other rapid cardiac rhythms. Among the more common of these are bundle-branch block with a rapid supraventricular rhythm and also instances of auricular tachycardia, fibrillation, and flutter in patients exhibiting the Wolf-Parkinson-White syndrome and in sinus tachycardia with aberration of the QRS complexes and repetitive attacks of paroxysmal tachycardia with aberration. Long strips of electrocardiographic tracings, esophageal leads, and listening for varying intensity of the first heart sound constitute about the only means of differentiation. Bellet has expressed the opinion that digitalis does not necessarily worsen a ventricular tachycardia except in those instances in which the tachycardia is likely due to digitalis.[3] This fact should be kept in mind in urgent situations when an electrocardiogram is not available within a reasonable length of time.

Auricular flutter and auricular tachycardia associated with myocardial infarction carry a high mortality rate and should be treated vigorously.[1, 2]

SUMMARY

The armamentarium of drugs used in therapy of the arrhythmias has been seen to be steadily mounting. Some of these drugs are rather uniformly safe while others are attended with at least some hazard. The bulk of the arrhythmias can be managed by simple measures or a very few drugs. Digitalis appears to be the most universal drug for the paroxysmal arrhythmias with quinidine running a close second. Certainly in the absence of an electrocardiogram in very urgent situations digitalis appears to be the drug of choice. Caution is emphasized in the management of auricular flutter regarding quinidine and meperidine. Sedation is emphasized and its relationship to hypothalamic influences is suggested. The controversial aspects of paroxysmal auricular tachycardia management is discussed. It is always well to remember that not all the arrhythmias require treatment.

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The Anemias

Diagnosis and Treatment

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ANEMIAS, in one form or another, are frequently encountered by physicians both in general practice and in the various specialties. Furthermore, their presence often has an important connotation with respect to the patient's major medical problem, either from the etiologic viewpoint or as a result of a primary disease. The importance of anemias in obstetrics, surgery, urology, ophthalmology, and neuropsychiatry, to mention a few specialties, is of equal significance to their presence in the general run of patients in internal medicine and general practice. Thus, all physicians should be keenly aware of the clinical implications of anemia in order that appropriate measures of control based on adequate diagnostic study may be employed as indicated. For example, in the presence of severe infections the out-

come to a considerable extent may be dependent upon the maintenance of a good blood count which assures a satisfactory transport system to the tissues. Similarly, many patients under consideration for major surgical procedures of necessity must be restored to a normal hematologic status before they can be classified as acceptable operative risks.

From the purely clinical point of view, anemia may be said to exist when the hemoglobin falls to a level below 12 Gm. per 100 ml. in adult women and below 13 Gm. per 100 ml. in adult men. Actu-

Dr. Chorles T. Stone, professor of internol medicine, University of Texos Medicol Bronch, presented this poper for the Section on Generol Proctice April 30, 1957, ot the onnuol session of the Texos Medicol Associotion in Dollos.

Anemia constitutes an important problem for the physician. Treatment of anemia without determining its type and cause may be ineffective or even dangerous The blood in macrocytic, hyperchromic anemias contains a greater concentration of hemoglobin than normal; microcytic, hypochromic anemias are typically of the iron deficiency type; normocytic, normochromic anemias usually are due to bone marrow hypofunction.

ally, the term anemia is far more inclusive, but for clinical purposes this designation is sufficient. With the reduction in hemoglobin there is usually, but not always, a reduction in the number of red blood cells. In states of normal health red blood cells are constantly undergoing destruction, probably, to a considerable extent, from the trauma to which they are subjected in the vascular bed (particularly in the capillaries, the diameter of which may be smaller than that of the erythrocyte), as well as from aging. The normal red blood cell has a life span of about 120 days. As the red cells undergo destruction, they are replaced by new cells from the hematopoietic centers in the red bone marrow. In the process of destruction, largely a function of the reticuloendothelial system, most of the constituents of the red cell, except part of the pigment, are conserved and re-used by the bone marrow. It is the precise adjustment between erythrocyte destruction in the circulation and production in the bone marrow that maintains the blood count at normal levels. Departure from normal in either the rate of red cell destruction or production ultimately results in anemia.

There is the capacity for greatly increased production of red blood cells—up to seven times the normal[5]—by the marrow in the event of excessive red blood cell destruction. Therefore, a normal blood count may exist even though both red cell destruction and production are accelerated. The characteristics of increased destruction are increased serum bilirubin of the indirect type, increased urine and fecal urobilinogen, and a hyperactive bone marrow with a resulting increase of reticulocytes in the peripheral blood.

Anemia, like many other evidences of disturbed states of health such as fever, palpitation, headache, malaise, and weakness, should not be regarded per se as a diagnosis. Most anemias are caused by some condition which interferes with the balance between red blood cell production and destruction. Appropriate methods of study, available in the average clinical laboratory, will establish the type of anemia in most cases and suggest its rational therapy. Indeed, until the exact cause and type of anemia are known, treatment not only may be ineffective, but under certain circumstances may even prove dangerous by delaying the application of appropriate measures of management. Certain internal carcinomas, especially those of the gastrointestinal tract, for a prolonged period may have as their chief clinical manifestation a hypochromic, microcytic anemia. Delay in recognizing the cause of an anemia of such origin might mean the difference in a favorable or hopeless outcome. In the case of addisonian hyperchromic, macrocytic anemia the delay in institution of proper therapy may permit the development of combined system degeneration in the spinal cord.

In beginning the laboratory examination of a patient, ambulatory or otherwise, a routine blood count should be obtained. This should include the hemoglobin in grams per 100 milliliters of blood, the red blood cell count per cubic millimeter, the hematocrit, and the white blood cell and differential cell counts. With these basic values it is a simple matter to determine the red cell size, mean corpuscular volume (MCV), the mean corpuscular hemoglobin (MCHb), and the mean corpuscular hemoglobin concentration (MCHbC). It should be borne in mind that these results are correct only to the extent that the routine blood count on which they are based is accurate. With the values of mean red cell size and hemoglobin content the physician can tell at once whether the anemia in question is macrocytic, hyperchromic; microcytic, hypochromic; or normocytic, normochromic. This is information of fundamental importance since it enables the doctor to limit sharply the diagnostic possibilities in given cases.

MACROCYTIC, HYPERCHROMIC ANEMIAS

The anemias distinguished by large red cells containing a greater concentration of hemoglobin than

normal (macrocytic, hyperchromic) are limited to a few clear-cut types, as noted in table 1. In these anemias there is usually present, in addition to the macrocytosis and hyperchromia, an increase in serum bilirubin of the indirect type due to a rapid rate of destruction of immature erythrocytes in the blood stream. This may impart a characteristic lemon yellow discoloration to the skin and scleras. The addisonian pernicious type invariably has a histamine-fast achlorhydria whereas the other forms may and frequently do have free hydrochloric acid in the gastric secretion. Finally, the presence of symptoms and signs of combined system degeneration in the spinal cord clinches the diagnosis of pernicious anemia. There is a precaution which should be considered; namely, carcinoma of the stomach and at times other cancers of the digestive tract may be associated with both gastric achlorhydria and a macrocytic, hyperchromic anemia. Their possibility obviously should be borne in mind.

TABLE 1.—*Classification of Macrocytic, Hyperchromic Anemias.*

Type	Cause
Addisonian pernicious anemia	Vitamin B_{12} deficiency.
Total gastrectomy	Vitamin B_{12} deficiency.
Diphyllobotrium latum (fish tapeworm infestation)	?
Nutritional anemia	Folic acid deficiency.
Tropical anemia	Folic acid deficiency.
Pernicious anemia of pregnancy	Folic acid deficiency.
Sprue	Folic acid deficiency due to faulty absorption.
Multiple small intestine strictures	Folic acid deficiency due to faulty absorption.
Ileitis	Folic acid deficiency due to faulty absorption.

The treatment of addisonian pernicious anemia is with vitamin B_{12} in initial doses of 30 to 60 micrograms parenterally daily for the first 10 to 14 days, then weekly for six to eight weeks, followed by a maintenance dose of a like amount at monthly intervals. An early reticulocyte response beginning in three to five days and lasting about 10 to 14 days, proportional to the severity of the anemia, is conclusive proof of the accuracy of the diagnosis. Iron is not needed in the treatment of pernicious anemia. By the same token "shot-gun" mixtures of liver extract, stomach extract, iron, cobalt, copper, vitamin B_{12}, folic acid, and other additions are illogical and unnecessary; vitamin B_{12} is specific. Folic acid usually will produce a satisfactory hematologic response in pernicious anemia, but it cannot be relied upon to correct or prevent neurologic relapses. In fact it has been claimed that folic acid may precipitate severe neurologic relapse.[1]

What has been said with respect to the treatment of pernicious anemia applies to the macrocytic, hyperchromic type that may follow total gastrectomy.

The remaining forms of this type of anemia, particularly the nutritional form and that encountered in sprue and the so-called pernicious anemia of pregnancy, are often refractory to vitamin B_{12} but show a satisfactory response to treatment with folic acid.

It should be emphasized that in this group of anemias as a whole the main fault lies in a maturation arrest of the erythroid elements in the bone marrow, the effective treatment for which is specific for all practical purposes. In those cases in which doubt exists, a study of the marrow obtained by sternal biopsy seldom fails to provide helpful diagnostic information, but it is not needed in the average case. In some instances inadequate treatment or that not founded on satisfactory diagnostic criteria may mask the classic picture of the disease to the extent that the diagnosis may present unusual difficulties.

MICROCYTIC, HYPOCHROMIC ANEMIAS

The anemias which are characterized by hypochromia and microcytosis are typically of the iron deficiency type. They constitute the largest number of anemias encountered and are due to multiple etiologic factors, the commonest of which is chronic blood loss. Laboratory studies supply the necessary diagnostic criteria, and a well taken history and carefully made physical examination, together with additional data obtained from the clinical laboratory and roentgenograms, provide the requisite factors for arriving at a correct conclusion as to the cause. Numerically, most microcytic, hypochromic anemias occur in women for the simple reason that they lose an appreciable amount of iron with each menstrual period. If the loss happens to be excessive, anemia of this type ensues. In men the most common cause of chronic blood loss with resulting anemia is peptic ulcer or some other ulcerative lesion in the gastrointestinal tract. Watson's classification of the iron deficiency anemias[3] appears in table 2.

With all of the factors included in table 2 in mind, as well as the history, physical examination, and facts obtained by special methods of examination, it is usually an easy matter to make an accurate diagnosis of microcytic, hypochromic anemia and to determine its cause. Where a definite etiologic factor such as chronic blood loss is involved or there are other obvious causes such as infection, chronic diarrhea, and lead poisoning, rational therapy demands their correction. In those microcytic, hypochromic anemias (idiopathic?) associated with inadequate intake of iron, achlorhydria, pregnancy, and certain other conditions such as avitaminosis, an approach should be toward palliation of the associated disorder

plus the oral administration of ferrous iron. In these anemias iron stands in the same position with respect to enabling the bone marrow to produce a normal peripheral blood as does vitamin B_{12} (the erythrocyte maturing factor) in addisonian pernicious anemia. Liver, stomach extract, vitamin B_{12}, and folic acid have no part in the treatment of microcytic, hypochromic anemias. Alleviation of the cause and the administration of ferrous iron are sufficient.

TABLE 2.—*Watson's Classification of the Iron Deficiency Anemias.*

1. Inadequate intake:
   Nutritional.
2. Inadequate absorption:
   Achlorhydria.
   Rapid intestinal motility as in diarrhea and "dumping syndrome."
3. Excessive loss:
   Chronic bleeding.
4. Inadequate utilization:
   Infection:
   Lead poisoning:
   Thalassemia (Cooley's anemia).
5. Increased requirements:
   Pregnancy.

From Watson, R. J., and Lichtman, H. C.: Anemias, M. Clin. North America 39:735-749 (May) 1955.

Experience has shown that optimum blood regeneration follows the daily administration of an iron salt containing 25 mg. of utilizable iron. This is most economically and effectively obtained from 333 mg. (5½ grains) of anhydrous ferrous sulfate. Ordinary ferrous sulfate would require 600 mg. (10 grains), ferrous carbonate 800 mg. (12 grains), ferrous gluconate 1,000 mg. (15 grains), and ferric ammonium citrate 7,000 mg. (105 grains) to supply the required 25 mg. of utilizable iron.[2]

Occasionally, iron absorption through the intestinal mucosa is inadequate for replenishing the deficiency in the blood, and it may be necessary to administer either a saccharated iron oxide preparation intravenously or an iron-dextran preparation intramuscularly. The instances in which this is necessary are rare and can be determined only after a thorough trial and failure with iron given orally. It should be noted that severe and at times even fatal reactions have occurred from iron given intravenously. The initial dose of intravenous saccharated iron oxide is 50 mg., and this may be increased to 100 mg. once or twice weekly. Since very little iron is ever excreted from the body—1 mg. per day on the average—caution must be exercised that too much iron is not given intravenously. The total amount furnished by this route rarely should exceed 500 to 800 mg.; usually considerably less is enough.

NORMOCYTIC, NORMOCHROMIC ANEMIAS

Normocytic, normochromic anemias as a rule are due to bone marrow hypofunction, and may be classified on an etiologic basis, as in table 3.[3]

It is at once apparent that in this form of anemia the cause must be sought, and when found either treated by appropriate methods or eradicated, if possible. Thus, in those cases due to chemical or physical injury to the marrow, the patient must be prevented from further exposure to the causative agent. Bone marrow biopsy may afford the clue to the cause and indicated line of therapy in those cases due to the presence of abnormal tissue in the marrow. When hormonal factors stand in the etiologic role, their existence must be established and, if possible, corrected. For instance, there is nothing more gratifying than the response of the anemia of hypothyroidism following the correction of the hypometabolic state or the prompt recovery after splenectomy in hypersplenism.

TABLE 3.—*Etiologic Classification of Normocytic, Normochromic Anemias.*

1. Chemical or physical injury to marrow.
   X-irradiation.
   Radioactive substances.
   Nitrogen mustards.
   Thiourea compounds.
   Benzin.
   Heavy metals.
   Sulfa drugs.
   Chloramphenicol (Chloromycetin).
   Phenylbutazone (Butazolidin).
2. "Myelophthisic" due to presence of abnormal tissue in the marrow.
   Metastatic neoplasms.
   Multiple myeloma.
   Lymphoma.
   Leukemia.
   Lipoidosis.
   Osteosclerosis.
   Myelofibrosis.
3. Metabolic inhibition.
   Uremia.
   Infection.
   Chronic liver disease.
   Malignancy.
4. Hormonal factors.
   Hypersplenism ?
   Hypopituitarism.
   Hypothyroidism.
5. Idiopathic.
   Refractory anemia.

From Watson, R. J., and Lichtman, H. C.: Anemias, M. Clin. North America 39:735-749 (May) 1955.

HEMOLYTIC ANEMIA

Hemolytic anemia is a classic example of anemia due to excessive blood destruction since in this form the red blood cells have a shorter than normal survival time. As a rule it is a normocytic anemia. It

may be either (1) hereditary, for example, congenital hemolytic anemia, or (2) acquired, from many causes. It is characterized by normocytic anemia, hyperbilirubinemia, reticulocytosis, increased amounts of urobilinogen in the urine and feces, and an erythroid hyperplasia in the bone marrow. Generally, the hereditary types are due either to intracorpuscular defects, for example, the spherocytosis of hereditary hemolytic anemia, or to the target cells of thalassemia (Cooley's Mediterranean anemia).

In the past decade and a half a considerable amount of information has been developed with respect to anemias resulting from an abnormal structure of the hemoglobin molecule. Normal hemoglobin is designated as the A type. The fetal (F) hemoglobin disappears from the infant's blood a few months after birth, but in certain conditions (thalassemia, leptocytosis) it may persist beyond the normal period and give rise to severe and even fatal hemolytic anemias. In sickle cell anemia 75 to 100 per cent of the hemoglobin is of the S type.[4] With the development of paper electrophoresis it has become a simple matter to determine the presence of abnormal hemoglobins. The clinician may derive some satisfaction from having arrived at the correct diagnosis, thus assuring himself and the patient that every reversible cause for the anemia has been eliminated, even though it is small comfort that there is no adequate therapy for many cases.

In the present generation knowledge of the Rh factor and its clinical implications has been developed. If Rh positive blood is transfused into an Rh negative recipient, anti-Rh-positive antibodies develop in the recipient's blood. Should a second transfusion of Rh positive blood be given to such a recipient, a severe hemolytic reaction may occur.

Erythroblastosis fetalis is now a well known complication in an infant born of a mother with Rh negative blood and a father with Rh positive blood. This means that all pregnant women should be Rh tested, and in those whose blood is Rh negative, testing of the husband's is carried out. When the mother has Rh negative blood and the father Rh positive, the anti-Rh-positive titer of the mother's blood should be determined, in order that the erythroblastotic infant might be anticipated. Thus, if needed, lifesaving replacement blood transfusions with Rh negative blood may be given to the infant in the immediate postpartum period.

In the majority of acquired hemolytic anemias a positive causative factor may be determined, such as the usual transfusion reaction, high titer of cold agglutinins, septicemia, phenylhydrazine, sulfa drugs, and malaria. Many of these anemias are the result of toxic injury of the red blood cells by the etiologic agent, whereas in others hemolysis results from antibodies attached to the red cells or free in the plasma. The Coombs' test is of great value in the study of these anemias. Yet some acquired hemolytic anemias do not have antibodies, and there is no discoverable cause. In no group of anemias is there greater need for thorough hematologic study, usually of a type not obtained in the general hospital or office laboratory. Since most of these anemias have a primary cause, the detection of it is mandatory. If, after thorough study, there is no assignable primary condition to which the hemolytic anemia may be secondary, empiricism suggests treatment with transfusions, steroid hormones, and in some cases splenectomy. It is in this latter group that results of therapy are often less than satisfactory.

CONCLUSIONS

In a summary fashion the basic facts concerning the anemias have been presented, together with their clinical and hematologic characteristics.

Emphasis has been given to the necessity for the prompt and accurate appraisal of the various types of anemia in order that their etiologic background may be determined with the idea of providing therapy based on sound principles at a time when in many instances, it might prove curative.

Since a majority of anemias are the result of faults in other body systems, the study of them often presents challenging opportunities for the exercise of wide clinical knowledge in many fields if the correct answer is to be found.

Indiscriminate treatment of the anemic patient is deplored, since it often postpones a determination of proper therapeutic regimens. Such ill conceived programs of treatment in the case of pernicious anemia may allow the development of irreversible spinal cord changes or in microcytic, hypochromic anemia may permit the progression of an internal cancer to a hopeless stage. In certain normocytic and normochromic anemias delay in the recognition of the causative toxic agent may allow its effect to be continued beyond the point of recovery.

Anemia in most cases is a result of an underlying cause, and before anemia can be treated intelligently, the cause must be diligently sought and, when found, appropriately treated.

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Cadmium Shampoo Treatment Of Seborrheic Dermatitis

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Galveston, Texas

SINCE the specific etiology of seborrheic dermatitis has not been determined, the treatment still remains empirical. Recently, the time-honored remedies of resorcinol, sulfur, coal tar, and salicylic acid have been superseded by the sulfide salt of various metals, such as selenium. Lanolized detergents with sulfur and salicylic acid also have been an improvement over earlier therapeutic measures. Although these agents give good palliative results, one cannot be assured of a lasting result. The entity itself is characterized by remissions and exacerbations; therefore, the objective evaluation of these various agents has been very difficult.

The purpose of this study is to present the results obtained in 200 patients following the local use of 1 per cent cadmium sulfide in a detergent base (Capsebon, Pitman-Moore). This study has been confined to seborrhea of the scalp. Throughout this endeavor, we have tried to make a comparison between this preparation and other reputedly effective shampoos.

PROPERTIES OF CADMIUM SULFIDE AND TOXICOLOGIC STUDIES

Cadmium sulfide is rather inert, having a solubility of 1 microgram per cubic centimeter in water at 18 C. and is thought by some investigators to have an oligodynamic action against microbial organisms. Our pilot in vitro sensitivity studies do not corroborate this finding. The insolubility of this preparation should lend to stability, as well as to safety. To date, there have been no reports in the literature regarding toxicity of cadmium salts when applied topically. Since cadmium sulfide reacts with stomach acid to form cadmium chloride, a strongly emetic compound, its ingestion should cause no more toxicity than acute nausea and vomiting. One group[1] in studying urinary excretion found occasional increases in urinary cadmium after the use of the shampoo for a month or two. However, these were probably not significant since they did not vary much from normal persons. Traces of cadmium, interestingly enough, are found in many foods,[5] and its urinary excretion in normal persons may be expected to vary according to diet.

An ocular irritation study with dogs was done by Burch[2] employing cadmium sulfide and selenium disulfide. He used both diluted and undiluted preparations and found that the selenium was more inclined to give conjunctivitis, lacrimation, and reversible opacity of the cornea.

Burch and Blair[3] have shown that cadmium oxide in a .015 per cent diet mixture is an extremely effective treatment for ascariasis in swine. When the percentage reached a level of .03 per cent, the pigs showed a decrease in food intake, and when larger amounts were utilized, vomiting occurred. Forney and his associates,[4] in studying tissue levels of cadmium in pigs given ascaricidal doses of cadmium oxide, found less cadmium in kidney tissue than is found in human kidneys with no known exposure to cadmium. Inhalation studies, carried out by Potts and others,[6] showed minimal absorption of radioactive cadmium sulfide from deposits in lung tissue.

METHODS AND MATERIALS

The patients utilized in this study had a primary or associated complaint of moderate to severe seborrheic dermatitis of the scalp. Some of these persons presented the dry seborrhea sicca type and others presented the findings of seborrhea oleosa. There were nearly 300 patients who utilized this preparation; however, adequate records could be maintained only on 200. The patients were instructed to cleanse the scalp initially with soap or their regular shampoo. This was to be followed by two latherings of cadmium sulfide and the last application was to remain on the scalp for approximately 10 minutes. They were

Dr. J. Fred Mullins and his coauthor, from the Department of Dermatology (Dr. Mullins, director), University of Texas Medical Branch, presented this paper for the Texas Dermatological Society April 29, 1957, in Dallas.

A therapeutic shampoo containing 1 per cent cadmium sulfide gave good results in 77.5 per cent of 200 cases of moderate to severe seborrheic dermatitis of the scalp. There were no untoward reactions in these cases with the exception of 2 cases of possible contact dermatitis. The preparation produces no oiliness and is remarkably well accepted by patients.

The cadmium sulfide preparation (Capsebon) was furnished by the Pitman-Moore Company, Indianapolis.

instructed to use the preparation every three to seven days. The study covered a period of one year. All races were included in the study and the ages ranged from 2 months to 83 years.

RESULTS

Because this effective preparation does not necessarily give permanent cure, it was decided not to utilize the term "excellent" in describing the results. Even though certain cases demonstrated exceedingly remarkable results, they were placed in the category of "good" and further breakdowns were "fair" and "poor." The criteria by which we arrived at a quantitative estimate of our results were: absence of scaliness, lack of pruritus, and patient acceptance. As can be seen in table 1, from a total of 200 cases, 155 gave good results, 21 gave fair results, and 24 gave poor results or failures. Table 2 revealed 12 patients who utilized the shampoo base and this was compared with the cadmium suspension. Of the 2 patients who obtained good results, 1 felt that the base was superior and the other thought the two preparations were indistinguishable. The 2 patients who demonstrated a fair result seemed to put the two preparations on an equivalent basis. The 8 patients with poor results believed cadmium sulfide was definitely superior.

TABLE 1.—*Results of Treatment of 200 Cases of Seborrheic Dermatitis with Cadmium Shampoo.*

Results	No. Cases
Good	155
Fair	21
Poor	24
Total	200

TABLE 2.—*Results of Use of Cadmium Base in 12 Cases of Seborrheic Dermatitis.*

Results	No. Cases
Good	2
Fair	2
Poor	8
Total	12

As shown in table 3 cadmium sulfide was considered equally as good as selenium disulfide by 27 patients, but the over-all patient acceptance was in favor of the cadmium. In the majority of cases, specific antiseborrheic shampoos had not previously been employed, so comparison could be made only with nonmedicated shampoos. In no instance were the nonmedicated shampoos superior to cadmium sulfide suspension.

Two patients developed an erythematous, papular eruption following the use of this therapeutic shampoo. The eruptions were believed to be contact dermatitis since these persons gave 3 plus reactions to patch tests with the full-strength preparation. However, we were surprised to note that when they were subsequently patch tested three months later to the individual constituents, as well as the shampoo, they showed negative reactions.

TABLE 3.—*Selenium Disulfide and Cadmium Sulfide Comparison Group (60 Cases).*

Results	No. Cases
Equal results	27
Cadmium sulfide superior	6
Selenium disulfide superior	25
Both failures	2

DISCUSSION

This product is remarkably well accepted by the patients as an excellent, foamy shampoo, free from any objectionable odor. Another significant feature is the absence of oiliness of the hair following its use. There is no residual discoloration of gray hair. Our studies have covered a period of one year, and a large number of the patients have used this preparation regularly throughout this interval. No side reactions have been observed other than the 2 cases of possible contact dermatitis, and although this series of cases is not large, we believe that this is a safe preparation. It has not been suggested in this study that this is a definitive cure for seborrheic dermatitis of the scalp; however, it is considered to be an extremely useful agent in control of chronic or recurrent seborrhea of the scalp.

SUMMARY AND CONCLUSIONS

A therapeutic shampoo containing 1 per cent cadmium sulfide was found to give good results in 77.5 per cent, fair results in 10.5 per cent, and poor results in 12 per cent of cases of moderate to severe seborrheic dermatitis of the scalp. When possible a comparison was made with selenium disulfide and the results are herein reported. There were no untoward reactions in these cases with the exception of 2 cases of possible contact dermatitis. This preparation produces no oiliness and is remarkably well accepted by the patients as an elegant shampoo. Owing to the patient's inacceptance of some of the other therapeutic measures, it is believed that this is an important contribution to the treatment of seborrheic dermatitis of the scalp.

REFERENCES

1. Boyer, P. A., Jr.: Personal communication.
2. Burch, G. R.: Personal communication.
3. Burch, G. R., and Blair, H. E.: New Ascaricide for Swine, J. Am. Vet. M. Ass. 126:304-308 (April) 1955.

4. Forney, R. B.; Bunde, C. A.; and Burch, G. R.: Tissue Storage in Cadmium-Treated Pigs, Proc. Soc. Exp. Biol. & Med. 90:13-14 (Oct.) 1955.
5. Monier-Williams, G. W.: Trace Elements in Food, New York, John Wiley and Sons, Inc., 1950, p. 428.
6. Potts, A. M., and others: Distribution and Fate of Cadmium in Animal Body, Arch. Indust. Hyg. 2:175-188 (Aug.) 1950.

Dr. Mullins and Dr. Barnett, Department of Dermatology, University of Texas Medical Branch, Galveston.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-23, 1958 (Executive Council, Sept. 8, 1957). Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.
American Medical Association, Interim Meeting, San Francisco, April 10-12, 1958. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

AUGUST

No meetings have been reported for August.

SEPTEMBER

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.
American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.
American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.
American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.
International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.
Southwest Regional Cancer Conference, Fort Worth, Sept. 20-21, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.
Tri-State Medical Assembly, Shreveport, Sept. 12-13, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.
Texas Industrial Medical Association, Houston, Sept. 26-28, 1957. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. W. B. Sherman, New York, Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy
American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.
American Academy of General Practice, Dallas, Spring, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.
American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.
American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.
American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Grosse Point 30, Mich., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.
American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.
American Association for Thoracic Surgery, Boston, May 16-18, 1958. Dr. Brian Blades, Washington, D. C., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.
American Association of Genito-Urinary Surgeons, Edgewater Park, Miss., April 23-25, 1958. Dr. George F. Cahill, New York, Pres.; Dr. W. J. Engel, 2020 E. 93rd, Cleveland, Secy.
American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.
American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Merle Moore, Portland, Ore., Pres.; Dr. David Thomas, 1467 Harper St., Augusta, Ga.; Secy.
American College of Chest Physicians, San Francisco, June 18-22, 1958. Dr. Burgess L. Gordon, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.
American College of Gastroenterology, Boston, Oct. 20-23, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.
American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.
American College of Radiology, Chicago, Feb. 5-8, 1958. Dr. Ira H. Lockwood, Kansas City, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.
American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.
American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.
American Gastro-Enterological Association, Washington, D. C., May 30-31, 1958. Dr. M. W. Comfort, Rochester, Minn., Pres.; Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.
American Gynecological Society, Asheville, N. C., May 19-21, 1958. Dr. Howard C. Taylor, Jr., New York City, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.
American Heart Association, Chicago, Oct. 25-29, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.
American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nasb, 277 Alexander, Rochester 7, N Y., Secy.
American Neurological Association, Atlantic City, June 16-18, 1958. Dr. Israel S. Wechsler, New York, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.
American Ophthalmological Society, White Sulphur Springs, W. Va., May 28-30, 1958. Dr. Walters Atkinson, Watertown, N. Y., Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.
American Orthopedic Association. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.
American Pediatric Society, Atlantic City, N. J., May 8-9, 1958. Dr. A. Ashley Weech, Cincinnati, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.
American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.
American Psychiatric Association, San Francisco, May 12-16, 1958. Dr. Harry C. Solomon, Boston 15, Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.
American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.
American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.
American Surgical Association, New York, April 16-18, 1958. Dr. John Mulholland, New York, Pres.; Dr. William Altemeier, Christian R. Holmes Hospital 19, Cincinnati, Secy.
American Urological Association, New Orleans, April 29-May 1, 1958. Dr. William J. Baker, Chicago, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.
Association of American Physicians and Surgeons, Interim Meeting of Delegates, Oct. 18, 1957. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

National Tuberculosis Association, Philadelphia, May 24-29, 1958. Dr. William M. Morgan, Alliance, Ohio, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.

Southwestern Medical Association, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Southwestern Society of Nuclear Medicine. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Bradv, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, Houston, April 20-21, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, Houston, April 20, 1958. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Houston, April 20, 1958. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society, El Paso, Oct. 12, 1957. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association, Houston, April 20, 1958. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Geriatrics Society, Houston, April, 1958. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association, Houston, April 20, 1958. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Neuropsychiatric Association, Dallas, Oct. 18-19, 1957 (with Central Neuropsychiatric Association). Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, Houston, April 22, 1958. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Houston, April 21, 1958. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.

Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Physical Medicine and Rehabilitation Society, Houston, April, 1958. Dr. Odon F. von Werssowetz, Gonzales, Pres.; Dr. Edward M. Krusen, Baylor Hospital, Dallas, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Texas Society of Anesthesiologists, Houston, April 20, 1958. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Houston, April 20, 1958. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.

Texas Society of Plastic Surgeons, Houston, April 19, 1958. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, Waco, Oct. 7-8, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Houston, April 20, 1958. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, 2406 Manor Road, Austin, Executive Director.

Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

United States-Mexico Border Public Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.

Second District Society. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Amarillo, Spring, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, 1958. Dr. Foy Moody, Corpus Christi, Pres.; Dr. Thelma Frank, 129 Rainbow Lane, Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.

Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.

Eleventh District Society. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.

Twelfth District Society. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.

Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

New Orleans Graduate Medical Assembly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.

State Tumor Conference, Wichita Falls, April 12, 1958. Dr. Edwin C. Bebb, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

Texas State Board of Medical Examiners, Fort Worth, Dec. 5-7, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

MEDICAL MEETINGS

Southwest Regional Cancer Conference

The eleventh annual Southwest Regional Cancer Conference will be held in Fort Worth September 20-21, and special speakers will be Dr. Mark M. Ravitch, Baltimore, surgery; Dr. John D. Reeves, Boston, radiology; and Dr. Thomas M. Peery, Washington, D. C., pathology.

Friday, September 20, Dr. Peery will speak on "Hodgkin's Disease and the Lymphomas" and "Principles of Metastasis." Dr. Ravitch will discuss "Abdominal Enlargements in Infants and Children" and "Tumors of the Head, Neck, and Chest in Children." Dr. Reeves' topics will be "Diagnostic Applications of Radioactive Isotopes" and "Super Voltage X-Ray and Cobalt Bomb Therapy." In the evening, the three guests will participate in a clinical pathological conference on tumor cases; Dr. George Race, Fort Worth, will be moderator, and attending physicians will be welcome to join the discussions.

Saturday morning, Dr. Sidney Stout, Fort Worth, will moderate a panel discussion on "Hypnotism and Its Application to the Patient with Malignancy." Panelists will be Drs.. Hugh Savage, Oscar Morphis, and Lloyd Richardson, Fort Worth.

Sponsoring organizations are the Tarrant County Medical Society, Tarrant County Unit of the American Cancer Society, South Central Region Committee of the College of American Pathologists, and the South Central Region Committee of the American College of Surgeons.

International Medical Assembly

The annual Interstate International Medical Assembly will be held in Chicago September 30-October 3. The purpose of the Interstate Postgraduate Medical Association, which sponsors the assembly, is to provide a varied and informative medical postgraduate teaching program at a nominal fee. Programs may be obtained by writing Box 1109, Madison 1, Wis.

Blackford Memorial Lectureship

The second Blackford Memorial Lectureship on Cancer will be held in Denison November 5 under the sponsorship of the Grayson County Medical Society. Guest speakers will be Dr. Conrad G. Collins, New Orleans; Dr. J. R. Maxfield, Dallas; C. M. Pomerat, Ph. D., Galveston; and Dr. Edgar J. Poth, Galveston.

Conference for Business, Industry

The tenth annual Health Conference for Business and Industry is to be held in Houston September 26-28. Among those addressing the registrants will be Dr. William P. Shepard, New York, chairman of the American Medical Association Council on Industrial Health; Dr. Leo Wade, New York, medical director of Esso Standard Oil Company; and Dr. John D. Horgan, Grand Prairie, supervisor of health for Chance Vought Aircraft.

Registration fee for the conference is $15 and includes three luncheons and a reception. All physicians, nurses, and management people from small and large industries are eligible to attend. The program will be comprised largely of formal addresses in general assembly, but on the second afternoon there will be panel discussions on two or three industrial medical problems. The last day will be devoted to the problems of nurses in industry.

The Texas Industrial Medical Association will hold its fall meeting in conjunction with this conference.

Oklahoma City Clinical Society

The fall clinical conference of the Oklahoma City Clinical Society will be held October 28-30. Guest speakers will be Drs. Harry E. Bacon, Philadelphia, proctology; David M. Bosworth, New York, orthopedics; Carleton B. Chapman, Dallas, medicine; Frank E. Coleman, Des Moines, pathology; Edmond L. Cooper, Detroit, ophthalmology; James L. Dennis, Oakland, Calif., pediatrics; James E. Eckenhoff, Philadelphia, anesthesiology; Isadore Lampe, Ann Arbor, radiology; Milton L. McCall, New Orleans, obstetrics; Edmund R. Novak, Baltimore, gynecology; Rees B. Rees, San Francisco, dermatology; Harry W. Southwick, Chicago, surgery; Homer Swanson, Atlanta, neurosurgery; Theodore E. Walsh, St. Louis, otolaryngology; and Austin S. Weisberger, Cleveland, medicine.

The executive secretary, Miss Alma F. O'Donnell, 503 Medical Arts Building, Oklahoma City 2, can provide complete details.

AMERICAN COLLEGE OF SURGEONS

The forty-third annual Clinical Congress of the American College of Surgeons will be held in Atlantic City October 14-18, and more than 10,000 surgeons, physicians, students, and related medical personnel from all parts of the nation and many foreign countries are expected to attend. The congress program will include postgraduate courses, discussions in general surgery and the surgical specialties, motion pictures, cine clinics, color television from Johns Hopkins Hospital in Baltimore, research reports, and scientific and technical exhibits.

ACADEMY OF PSYCHOSOMATIC MEDICINE

The fourth annual meeting of the Academy of Psychosomatic Medicine will be devoted to psychosomatic aspects of obstetrics, gynecology, endocrinology, and diseases of metabolism. It will be held October 17-19 in Chicago, and will be open to all physicians, psychologists, social workers, and nurses. The purpose of the academy is to teach psychosomatic medicine in a manner to meet the needs of the general practitioner and nonpsychiatrically oriented physicians. Complete information may be obtained from Dr. William S. Kroger, Secretary, 104 South Michigan Avenue, Chicago 3.

Seminar on Nervous and Mental Diseases

The first Seminar on Nervous and Mental Diseases will be held September 13 and 14 at the Austin State Hospital, Austin. The scientific program will be as follows:

Importance of Neurological Orientation—Dr. R. E. Chambers, Austin.

Anatomy of Cortex and Basal Ganglia—Dr. K. Earle, Galveston.

Fundamental Physiology of Brain Activity—Dr. Hebbel Hoff, Houston.

Convulsive Disorder, Including Psychomotor Epilepsy—Dr. William S. Fields, Houston.

Pathologic Anatomy of Cortex and Basal Ganglia—Dr. K. Earle, Galveston.

Biochemistry of Mental Disease—Roy B. Mefferd, Jr., Ph. D., Austin.

Neuronal Mechanisms in Psychiatric Disorders—Dr. Walter O. Klingman, Galveston.

Present Status of Observation on Nerve Tissue Cells in Vitro—C. M. Pomerat, Ph. D., Galveston.

Electron Microscopy Studies of Nerve Tissue—Dr. Donald Duncan, Galveston.

Histological Differentiation in Brain of Geriatric Patients—Dr. C. de Chenar, Austin.

The meeting is open to all physicians. There is no registration fee, but doctors who plan to attend should preregister by writing to Dr. Sam A. Hoerster, Jr., Superintendent, Austin State Hospital, Austin.

International College of Surgeons Forms Continental Federations

In order to assure a broader presentation of scientific programs by world leaders in all branches of surgery, the International College of Surgeons has formed federations on a continental basis. Each federation will develop continental meetings to supplement the biennial congresses of the college and the annual sessions of the national sections.

Dr. Curtice Rosser, Dallas, president of the United States Section, will be the regional secretary of the North American Federation, which will consist of the United States and Canada. Dr. Ross T. McIntire, Dallas, will cooperate in the activities.

INTERNATIONAL POLIOMYELITIS CONFERENCE

The rising tide of poliomyelitis throughout most of the world occupied the attention of top ranking medical scientists from more than 50 nations at the opening session of the Fourth International Poliomyelitis Conference in Geneva early in July.

While the widespread use of Salk vaccine in the United States in 1956 was accompanied by a 50 per cent drop in the incidence of the disease as compared with 1955, there has been an increase in epidemics throughout the world.

Southwestern Medical Association

Guest speakers for the forthcoming Southwestern Medical Association meeting will be Dr. Oscar Creech, Jr., New Orleans, surgery; Dr. William Parsons, Charlottesville, medicine; Dr. J. S. DeTar, Milan, Mich., general practice; Dr. E. E. Muirhead, Dallas, pathology; Dr. Frederick C. Bost, San Francisco, orthopedic surgery; Dr. Edward A. Banner, Rochester, Minn., obstetrics and gynecology; Dr. Phillip Thygeson, San Francisco, ophthalmology; Dr. Robert A. Hingson, Cleveland, anesthesiology; and Dr. Howard P. House, Los Angeles, otolaryngology.

The meeting will be held in El Paso October 9-11.

Congress on Internal Medicine

The International Society of Internal Medicine will hold its fifth congress in Philadelphia April 24-26, 1958. This will be the first meeting to be held outside of Europe.

At this congress, medical achievements of world wide significance will be analyzed, and social and cultural activities to promote friendship and mutual understanding among physicians of the world have been planned.

Immediately following the congress (April 28-May 2) the American College of Physicians will meet in Atlantic City, and members of the congress may attend all scientific programs and exhibits of this meeting.

TRI-STATE MEDICAL SOCIETY

The Tri-State Medical Society will meet in Shreveport September 11 and 12, and the program will include both lectures and live clinics.

Special speakers will be Drs. Joseph H. Rosenzweig, Hot Springs, Ark., pediatrics; Robert Schneider, Oklahoma City, medicine; Carrol B. Larson, Iowa City, orthopedics; O. M. Marchman, Jr., Dallas, ophthalmology and otolaryngology; Joseph B. Sheffery, Washington, D. C., obstetrics and gynecology; O. H. Beahrs, Rochester, Minn., surgery; Edgar Burns, New Orleans, urology; and W. R. Mathews, Shreveport, pathology.

MEDICOLEGAL NOTES

Bexar County Questions Free Medical Care for Civil Service Employees

Early in 1956, members of the Bexar County Medical Society began to hear from their patients of a new program at Kelly Air Force Base, whereby Civil Service employees of that base were being offered physical examinations, electrocardiograms, chest x-rays, routine laboratory studies, and "cancer smears" at taxpayers' expense. In the Kelly AFB newspaper in April of that year, the employees read that they were being given comprehensive examinations that would cost them at least $75 in a doctor's office.

Following this news, the executive committee of the medical society passed a resolution empowering the president to appoint a committee to investigate the inroads on the private practice of medicine in Bexar County. This committee consisted of the following members: Dr. Walter Walthall, chairman, Drs. John Bohmfalk, J. B. Copeland, R. F. Gossett, Max E. Johnson, R. C. Norman, John M. Smith, Jr., and E. M. Sykes, Jr.

Investigations covered the following possible areas of encroachment:

1. City, county, and state health departments.
2. School health departments and vaccine programs.
3. Government examination and/or treatment of Civil Service employees.

4. Unions.
5. Veterans Administration.
6. Bexar County hospital district.

As a result of one of these investigations, the House of Delegates of the Texas Medical Association considered the problem, and in June, 1956, the Texas delegation introduced a resolution in the American Medical Association House of Delegates, which read as follows:

Resolution on Medical Care for Civil Service Employees.—"Civilian employees (under Civil Service) of various federal military installations are required to undergo yearly physical examinations (including eye examination, chest x-ray, EKG, routine laboratory procedures) by government employees at taxpayers' expense. This represents another intrusion into the private practice of medicine and conceivably justifies some usage of physicians drafted into the military service."

This resolution was referred by the AMA House to the Council on Medical Service. The primary intent of the resolution was to point out another intrusion (the Kelly Field program) on the private practice of medicine and to do all possible to stop it. The Council on Medical Service at first was of the opinion that the Texas delegation was more concerned about the use of drafted physicians in these examinations. At the Seattle interim session, the House, when informed of the main purpose of the resolution, instructed the Council on Medical Service to do the following:

1. Review the legislative authority for the employee health program in San Antonio;
2. Obtain and review basic material from the Texas Medical Association on the viewpoints and attitudes of the local profession; and
3. Carry out an on-the-spot survey in San Antonio.

By the time the previously mentioned procedures were carried out, the Bexar County's investigating committee had a complete picture of what was being conducted at Kelly Field. Half of the committee met with a Task Force group of the AMA in Dallas in April, 1957; the other half met with Task Force members in San Antonio and invited the Air Force administrative and medical officers to meet with them. The Task Force conducted an on-the-spot survey, met with all concerned at one meeting, spent much time at Kelly AFB, and met with the Air Force representatives without the Bexar County group present, and then reversed this procedure. All aspects of this program were studied by the Task Force group, made up of Dr. Donald C. Gonzett, Dubuque, Iowa, of the Council on Medical Service; George Cooley, acting secretary of the Council on Medical Service; Frank Barton, secretary of the Council on National Defense; Dr. B. Dixon Holland, secretary of the Council on Industrial Health; and Miss Alma Jensen, recorder for the Council on Medical Service.

Major Points Before AMA.—The Task Force's report was presented by the Council on Medical Service, and it was adopted by the Reference Committee on Medical Service and by the House of Delegates at the AMA session in New York in June.* The following major points were made:

1. With 23,659 civilian employees at Kelly Field and with many hazardous operations, the base has an extensive occupational health program. (The county medical society does not object to a program for routine occupational services.) Approximately 6 to 10 minutes are allowed per person, including time necessary for the doctor to review the history and perform the examination. All employees examined are notified of negative or positive findings of abnormalities, as are the employees' personal physicians. It is agreed by all parties concerned that this is not a "complete physical examination" but rather is a biannual screening examination designed eventually to include all civilian employees.

2. The medical society is opposed to this program because (a) such an examination, as conducted, is poor medicine, (b) the follow-up letter to the patient indicating no abnormal findings gives him a sense of false security, (c) the follow-up letters to the patient and his physician indicating abnormal findings may cause undue alarm, and (d) such examinations are for personal health not related to work and could best be done by the employee's own private physician. The Air Force insists that this is an occupational health program within Public Law 658 and the Public Health Service suggested program for civilian employees.

3. The medical society also believes that even though such regular screening examinations are carried out in some industries, they should not be provided for Civil Service workers at taxpayers' expense. This of course raises the question as to whether Civil Service employees of government should, for occupational health purposes, be considered the same as are employees of private industry.

4. The medical society looks upon the Kelly Field program as a pilot project to be extended to other Air Force bases and as a further encroachment of government into medical practice.

Recommendations and Conclusions.—The Council on Medical Service recommended first that where screening examinations (sometimes called multiple screening) are concerned primarily with personal health and not occupational health, and when they are deemed necessary or helpful to employees, they are to be considered as within the province of family physicians; and finally that any examinations, screening or otherwise, not concerned with or for the purposes of work assignment or related to employment conditions are to be considered personal health examinations and are the proper function of the employee's private physician and, therefore, when undertaken by industry or government, are an encroachment on the private practice of medicine. The Council's recommendation that the House consider the question as to whether Civil Service employees of government should be considered the same as employees of private industry for occupational health purposes, was referred for further study.

The Kelly Field Program of the examination of Civil Service employees at taxpayers' expense was, as the Bexar County investigating committee pointed out, an outgrowth of a series of health lectures to older employees. A pilot group of older people had been given examinations for several years, when the post surgeon decided to lower the age group and to ask all employees on the post to undergo these examinations on a voluntary basis. The program was called "The Geriatric Medical Program."

It was discovered early in the program that it was allowed under the provisions of Public Law 658, passed by Congress with the AMA's backing, in 1946. Under this law, it is possible to do preemployment and "other" examinations. The Bexar County committee believes the loose wording of this law should be corrected.

Under the AMA's proposed "Scope, Objectives, and Functions of Occupational Health Programs" was a statement which would have allowed industrial physicians "to evaluate the health status of the individuals employed." It stated that health measures offered industrial workers will be offered Civil Service employees since there is competition between the government and industry for certain types of employees. The Bexar County delegates were able to persuade the Reference Committee on Industrial Medicine to delete this last "scope and objective." Thus the AMA's policy as adopted this year would prevent another occurrence similar to the Kelly Field program.

Effective July 15 the examination of Civil Service employees at Kelly Air Force Base under the Geriatric Medical Program was discontinued. Also, it was ruled that Civil Service employees injured on the job will be transported to private doctors and facilities unless such a move would endanger their lives.

**The complete report appears in the July 6, 1957, J.A.M.A. pp. 1120-1121, 1123-1124.*

Negligent Acts of Employees

A physician's liability for the negligent acts of a partner or an associate was discussed in an article last month. This article is on a closely related subject—the liability of a physician for the negligence of his assistants, apprentices, agents, or servants, whether they be professional men, nurses, or laymen.

There is no doubt that today, in Texas, a physician can be liable for the negligent acts of any of his assistants, apprentices, agents, or servants. This liability rests upon the doctrine of respondeat superior—let the master answer. Under this doctrine, the master can be held liable for the negligent acts of his employees, and the courts have held that such doctrine would be applied to bring about the liability of a physician for any negligent acts of his employees which resulted in injury to a patient.

Although there is a somewhat surprising lack of cases in Texas applying this principle, there is no doubt that the courts would apply it to bring about liability upon the part of the physician.

Possibly the first case raising this issue was the case of Wilkins v. Ferrell.* Although this case involved a dentist rather than a physician, it is likely the courts would follow this reasoning as applied to a physician. The court, in its opinion, made the following statement:

> . . . Under the issues as made by the pleadings and the evidence, the jury should have been told that the evidence showed without dispute that some person other than the defendant extracted plaintiff's tooth; and that, before the defendant could be held liable therefor, it must appear from the evidence that such other person was the employee of defendant, over whose actions in the premises defendant had dominion and control; or that defendant, being called upon to do the work, directed it to be done by such other person, under circumstances which would justify an ordinarily prudent and reasonable person in believing that such other person was aiding defendant in his professional work. . . .

As can be seen by this portion of the opinion, the court held that if negligence was established, the dentist could have been held liable if the person who committed the act of negligence was the employee of the dentist and was under his direct control and supervision.

Applying this reasoning to a case in which a physician employs nurses and assistants in his offices, there would be no question but that such nurse or assistant would be considered an employee in the eyes of the law. Especially with regard to nurses and assistants in a physician's office, it hardly could be argued that such individuals are not under the direct control and supervision of the physician.

Another case bearing upon this subject is Lee v. Moore.† (This case was reversed by the Supreme Court in 211 S.W. 214 but upon other grounds.) Without going into the facts of this case, which are long and complicated, it probably will suffice if one statement of the court's opinion is quoted. It leaves little doubt as to a physician's liability for the acts of his employees:

> . . . But a physician is responsible for an injury done to a patient through the want of proper skill and care in his apprentice or assistant. . . .

Consequently, a physician can be held liable for the negligent acts of his employees which result in injuries to his patients. Probably the reason there is so little case law upon this subject is that there is no doubt as to this liability, and consequently, it has not been raised in subsequent cases. The only point necessary to substantiate liability is the establishment and proof of negligence on the part of the employee.

—PHILIP R. OVERTON, L.L.B.

*30 S.W. 450, 1895.
†162 S.W. 437.

Texas to Effect Disability Program

A state Law conforming to the requirements of the Federal Social Security Act for participation in the state-federal program of aid to the totally and permanently disabled will become effective in Texas September 1. Applications have been accepted since July 15. This law is H. B. 78, Aid to the Permanently and Totally Disabled. H. B. 78 is enabling legislation based upon S. J. R. 7, which was adopted as a constitutional amendment in November, 1956, by the people of Texas in a vote of 159,588 to 17,860 or approximately 9 to 1.

In a meeting in the Texas Medical Association's headquarters building July 7, John E. Winters, commissioner; Weldon Watson, executive assistant; and Dr. J. T. Phillips, representatives of the Texas State Department of Public Welfare, which will administer the program with Dr. Phillips, Austin, as medical director, presented the procedures for implementing this law in Texas to the Association's Council on Medical Economics for review. The council found them to be acceptable and expressed appreciation to the Department of Public Welfare for seeking counsel from the Association.

The new law provides financial assistance to United States citizens between the ages of 18 and 65 who are not eligible for other forms of government aid such as old age pension, care in a public institution (except as a patient in a medical institution), aid to the blind, or aid to dependent children. The term "permanently and totally disabled" means that the person has physical or mental impairment, disease, or loss which is irreversible or progressive, and not amenable to treatment. Also, the person must be adjudged unfit for vocational rehabilitation. Disability must be established on the basis of a medical report by a physician, and this report must be reviewed and approved by a physician employed by the State Department of Public Welfare. A fee for necessary medical examination will be paid by the department.

The Department of Public Welfare is authorized to provide such medical, social, and related services as are found necessary for proper administration of the law and for the most effective use of other resources for rehabilitation and restoration to health and independence.

The amount of assistance given will be determined through the district or field workers in the area in which the needy person resides. In determining need, all resources and available income to the person will be taken into consideration, and the amount granted will provide him with reasonable subsistance.

International MD Pool

A physicians' pool, organized on a world-wide scale on a completely neutral basis for use in case of another war, was the subject of a recent address delivered before the French Academy of Medicine by the Honorable Francois Tanguy-Prigent, Minister of Veterans Affairs. The project calls for a pact of mutual medical assistance to be furnished by neutral countries to belligerents; aid would consist of hospitalization of the wounded on neutral territory and shipment of medical supplies as well as personnel.

Medical Schools Have Growing Pains

Texas is a growing land, increasing in industry, education, culture, and population. With its productive growth come greater needs, and one of these needs is more doctors. True, medical education facilities in Texas have been expanded in recent years, but the three medical schools of this state have space to admit only 346 students each year. Of these, some will not graduate, some will move out of the state, and some will not be active practitioners.

DOCTOR-POPULATION RATIOS

In 1955, there was one physician for every 1,321 persons in Texas. The 1940 ratio was 1:1,090; thus the number of active practitioners has not kept up with the growing population. The American Medical Association advises one medical school for each 2,500,000 people in order to meet minimum standards. With the Texas population skyrocketing toward an expected 11,000,000 in 1970, the three schools now in operation will be still less adequate for the state's needs than they are now.

Dr. Melvin A. Casberg, vice-president for medical affairs of the University of Texas, and Alfred G. Dale, research associate in the University's Bureau of Business Research, Austin, have issued a study of physician population in Texas. The primary purpose is to analyze the cumulative effects of different levels of graduation from Texas medical schools after 1960. In the projections, variables such as the number of physicians licensed by reciprocity and by examination to graduates of out-of-state and foreign schools, mortality, out migration, and cancellations are considered.

TABLE 1.—*Anticipated Physician-Population Picture in Texas If Current Rate of Graduation of Doctors (320 per year) Remains Constant.**

	1940	1955	1960	1970	1975
Population	6,415,000	8,563,000	9,332,000	11,090,000	12,087,000
M. D.'s in active private practice	5,885	6,480	7,604	9,931	11,049
M. D. gain per year	335†	596†	348‡	333‡	319‡
M. D. - population ratio	1:1,090	1:1,321§	1:1,227	1:1,117	1:1,094

*Figures in this chart are based on the assumption that there will be a substantial increase in the number of foreign graduate in-migration.

†Number of new licenses issued in Texas.

‡Net gain after deaths, out-migration, issuance of Texas and out-of-state licenses, etc.

§A Texas Medical Association survey shows this figure to be about 1,100.

(Figures on physicians taken from Dale, A. G., and Casberg, M. A.: Illustrative Model Projection of Physician Population; A Preliminary Study in the State of Texas, Austin, University of Texas, 1957.)

Table 1 is compiled from this report, using figures based on the assumption that Texas medical school graduations will remain stable at the current rate of 320 annually, and that there will be substantial increase of foreign graduate in-migration.

Of course, many persons in Texas receive medical care from practitioners other than M. D.'s. Since this article deals with schools conferring doctor of medicine degrees, other types of practitioners are not included in the physician-population figures.

PROBLEM IS NOT NEW

The Texas Medical Association long has been interested in medical education; two of the purposes of the Association, as stated in the Constitution, are to extend medical knowledge and advance medical science and to elevate the standard of medical education. Dr. R. H. Harrison, in his 1878 presidential address, said, "Those who love the profession for its own sake and who venerate it for its antiquity must insist on premedical preparation and medical facilities commensurate with the lofty aims of the profession. Then the student can take his degree with credit to himself, honor to the profession, and benefit to humanity."*

He would have been pleased had he known that in 1957 Texas would have three top-ranking medical schools—University of Texas Medical Branch, Galveston; University of Texas Southwestern Medical School, Dallas; and Baylor University College of Medicine, Houston. Only four states have more medical schools than Texas, with one other having the same number of schools.

The first such institution in Texas was founded by Dr. Greensville Dowell in Galveston in 1866, and in 1876, as a result of the interest and influence of Dr. Ashbel Smith and John Sealy, the Texas Legislature provided that a medical branch of the University of Texas be established in Galveston. Mr. Sealy gave the hospital, which enabled the Medical Branch to open in 1890. Since then, the school has grown to accommodate a total of almost 900 students of medicine, nursing, technology, and other related sciences. About 165 freshman medical students are admitted each year.

At the turn of the century, there were several medical schools in Dallas, but the strongest of these was the Medical Department of the University of Dallas, headed by Drs. E. H. Cary, C. M. Rosser, and S. E. Milliken. This school became affiliated with Baylor University in 1903, and was moved to Houston in 1943. About 84 students are admitted each year.

When Baylor University College of Medicine moved from Dallas, a group of that city's citizens established the Southwestern Medical College of the Southwestern Medical Foundation in Dallas. During its first year of operation, 1944, it was fully approved by the Council on Medical Education and Hospitals of the American Medical Association. This was possible because full use was made of facilities and personnel remaining in Dallas when the Baylor school moved. It became apparent in 1949 that additional facilities must be made available for the training of doctors, and the Texas Legislature considered providing for a fourth medical school, calling on the Texas Medical Association for advice. The Southwestern Medical Foundation offered its equipment, library, and certain funds of its medical school to the state provided that the University of Texas would locate its new branch in Dallas. This offer was approved by the Texas Medical Association, and was accepted by the Board of Regents.

Incorporated in the bill authorizing the University of Texas to acquire Southwestern Medical College was a provision that the school should admit 100 students each year. This

*Nixon, P. I.: A History of the Texas Medical Association, 1853-1953, Austin, University of Texas Press, 1953, p. 76.

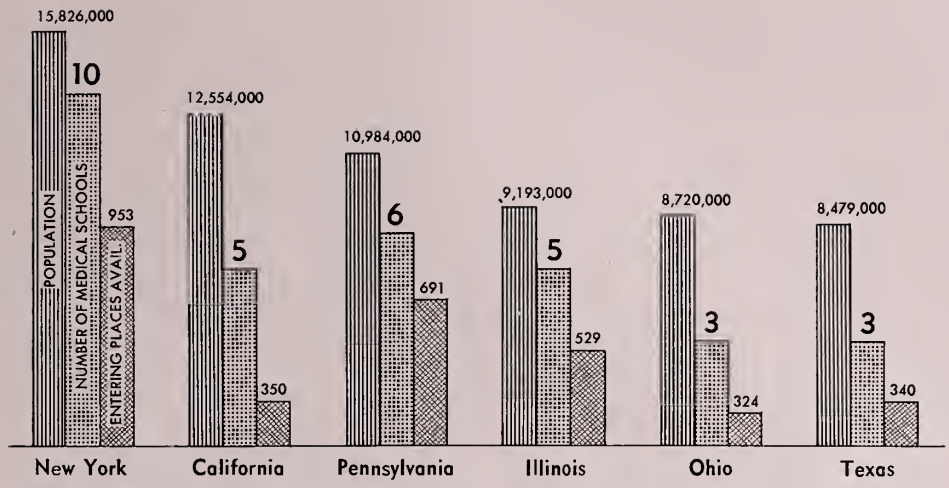

Fig. 1. Present population (left bar), number of medical schools (middle bar), and entering places available in medical schools (right bar) are contrasted for the five states with the largest populations. (Modified from charts prepared by the San Antonio Medical Foundation.)

was an increase of 36 over the school's previous annual admissions, and was accomplished by extensive rearrangement of the laboratory facilities and in some areas by a system of sections in which double duty was exacted of both physical plant and personnel.

In his presidential address at the 1957 annual session of the Texas Medical Association in Dallas, Dr. Milford O. Rouse questioned whether the state is placing an undue burden also on the faculty of the University of Texas Medical Branch by requesting that 165 students (far beyond the average optimum) be admitted each year in the freshman class. At the same meeting, the Council on Medical Education and Hospitals introduced a resolution, which was adopted by the House of Delegates, to support legislation providing for the establishment of a third medical branch of the University of Texas, and indicating that San Antonio would be the favored site for such a school. A similar recommendation had been approved several months earlier by the Association's Executive Council.

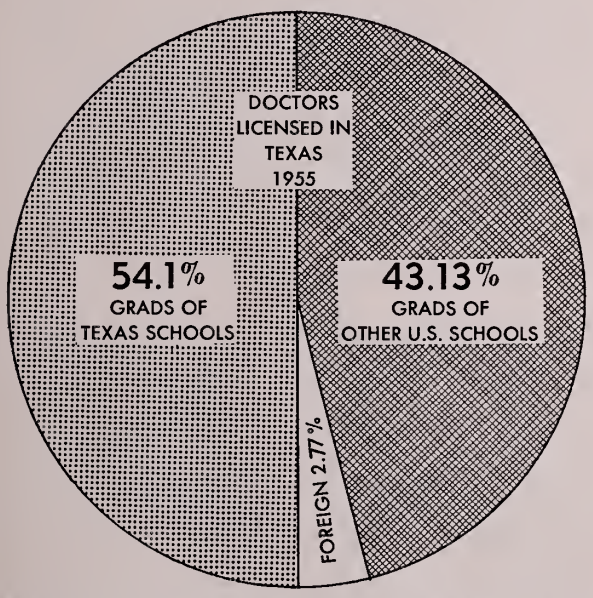

Fig. 2. The training sources of doctors licensed in Texas in 1955, based on figures from the Texas State Board of Medical Examiners. (Modified from charts prepared by the San Antonio Medical Foundation.)

SAN ANTONIO'S ADVANTAGES

Information being distributed by the San Antonio Medical Foundation shows that that city has in its favor complete medical research facilities, a wealth of potential faculty from every field of medicine, abundant clinical material, and a community already interested in supporting medical institutions.

The vast Brooke Army Medical Center, comprising Brooke Army Hospital and the Army Medical Service School; Lackland Air Force Base Hospital; the School of Aviation Medicine; the Southwest Foundation for Research and Education; and Bexar County Medical Society offer research and library facilities in abundance. With more than 500 practicing civilian physicians, any medical or surgical problem can be studied and treated in San Antonio, and many of the nation's top men of medicine are on the staffs of the military medical establishments. The large percentage of wage earning population and a co-mingling of several nationality groups offer much clinical material in addition to the patients at the San Antonio State Tuberculosis Hospital and the San Antonio State Hospital for patients with mental disorders.

Brooke Army Hospital is approved for residency training in dermatology, syphilology, internal medicine, neurology, ophthalmology and otolaryngology, orthopedic surgery, pediatrics, psychiatry, radiology, and surgery. A fine group of city and city-county hospitals is available for educational purposes.

As yet, the Texas Legislature has not passed a specific bill authorizing the third medical branch of the University, despite the introduction of such a bill before the fifty-fifth Legislature. The Commission on Higher Education first must make a thorough study of the situation, and it will have a great deal of influence in settling details and even in determining whether or not another medical school is desirable and practicable.

CURRICULUM REVISIONS CONSIDERED

One factor that must influence planning for medical education is that as science speeds through the barriers of the unknown, it becomes necessary for doctors to learn more and more in order to keep up to date. This creates a disturbing problem of curriculum. If the present line of curriculum extension should continue, it could reach the astonishing length of 18 years of training by 1970; so said Dr. Oliver

Cope, associate professor of surgery at Harvard Medical School, when he spoke at the recent Congress on Medical Education and Licensure held in Chicago. He suggested making better use of group teaching in lectures, seminars, and clinics, and combining the materials and subject matter of various departments. For instance, physiology, pharmacology, and biochemistry all teach aspects of the same subject, and could be joined as a division of physiologic chemistry.

In the national spotlight now, and potentially with a possible influence on Texas medical education, is the administration's controversial federal medical school aid bill, which would provide 225 million dollars for research and classrooms over a five year period. A recent report showed that all but a few of the nation's 83 medical schools would be interested in receiving federal aid. The interval between the decision to establish a new school and the graduation of its first class is six to eight years. At the present time, 25 per cent of all internships and residencies are filled by foreign doctors. This is an increase during the past five years of 280 per cent; in the same period, the number of United States citizens in these positions has decreased 1 per cent. In the past academic year, tuition covered only 18.2 per cent of the total operating expenses of the medical schools. Moreover, 13 states and the District of Columbia, with a total civilian population of 19 million, did not contribute any public funds, although $52,000,000 was appropriated by other states in 1956-1957 for medical education.*

These, then, are a few of the outstanding factors at work in Texas as increased facilities for medical education are considered.

Allergic Disease Scholarships

The American Foundation for Allergic Diseases has announced awards of $500 quarterly or summer scholarships to 20 medical students from approved medical schools throughout the United States and Canada to encourage young students to broaden their knowledge in the field of the allergic diseases by research and clinical training. These awards were made possible by a grant to the foundation from the Gustavus and Louise Pfeiffer Research Foundation.

Two Texas students received grants; they are Wayne M. Meyers, Ph.D., Baylor University College of Medicine, Houston, and Will Light Nash, University of Texas Southwestern Medical School, Dallas.

Baylor University College of Medicine

Dr. John C. Haley, chairman of the Department of Anatomy at Baylor University College of Medicine, Houston, was named distinguished professor emeritus of anatomy at a luncheon in his honor June 28. He will continue in his capacities as secretary-treasurer of both the Baylor Medical Alumni Association and Baylor Medical Foundation.

Dr. F. Keith Bradford, clinical associate professor of neurosurgery, has assumed the duties of chairman of the Division of Neurosurgery. Other faculty promotions include Dr. Ellard M. Yow to professor of medicine; Dr. Phil Davis to assistant professor of medicine; Dr. John R. Thomas to clinical associate professor of pathology; Dr. Robert C. Overton to clinical assistant professor of surgery; and Dr. Jane Telford to assistant professor of anesthesiology.

Studies of problems of paralyzed poliomyelitis patients will be conducted at Baylor University College of Medicine by Dr. George W. Clayton. His work is concerned primarily with the causes of a syndrome which involves both hypertension and an abnormally high level of calcium in the urine.

Dr. William A. Spencer, Department of Rehabilitation, and Dr. Paul Harrington, Department of Orthopedic Surgery, attended the Fourth International Poliomyelitis Congress in Geneva in July. They also entered an exhibit there. Dr. Leon Dmochowski, Department of Microbiology, presented a paper at the Fourth International Gerontology Congress in Merano and Venice in July. Other European travelers in July were Drs. Peter Kellaway, Department of Physiology; William S. Fields, Department of Neurology, and E. C. Alvord, Department of Neurology and Pathology, who attended the First International Congress of Neurological Sciences in Brussels.

Infantile Paralysis Fellowships

Postdoctoral fellowships in research, academic medicine, or the clinical fields of psychiatry, rehabilitation, orthopedics, management of poliomyelitis, and preventive medicine are being offered by the National Foundation for Infantile Paralysis. Deadlines for applications are September 1 and December 1.

Financial support varies according to previous education, experience, marital status, and number of dependents. For a full academic program, tuition and fees are allowed; for other programs, a sum not to exceed $1,250 per year is provided. United States citizenship is required, but those who have filed petitions for naturalization will be considered. Partial fellowships are available for qualified veterans to supplement G. I. educational benefits. Applications must be received by September 1 for November consideration, and by December 1 for consideration in February.

SOUTHWESTERN MEDICAL SCHOOL

The Smith, Kline, and French Foundation, through the American Psychiatric Association, has awarded a grant to the University of Texas Southwestern Medical School, Dallas, to permit two students to work during the summer in the inpatient department of the 70 bed Woodlawn Hospital, which is the teaching ward of the Department of Psychiatry. The students not only attend teaching conferences, but receive three hours a week of individual supervision by a staff psychiatrist. Dr. Robert L. Stubblefield, professor of psychiatry, supervises the program.

Postgraduate Courses

Air Pollution, December 2-13, New York.—Basic toxicology of the principal air pollutants, micrometeorological factors, effects of air pollution on agriculture and commerce, and methods for sampling and analyzing toxic components will be reviewed. Sources of air pollution, methods of control, and the pattern of governmental regulations will be studied. This course is designed for engineers, industrial hygienists, and physicians concerned with the problem of community air pollution; tuition is $90. For full details write the Associate Dean, New York University Post Graduate Medical School, 550 First Avenue, New York 16.

Medical Aspects of Workmen's Compensation, October 21-25, New York.—New aspects of health problems intensified by modern living will be presented at this course. The Associate Dean, New York University Post Graduate Medical

*Most Medical Schools Want U. S. Aid, J.A.M.A. 163:25 (March 30) 1957.

School, 550 First Avenue, New York 16, can supply information.

Gynecology Seminar, October 27-29, Houston.—The University of Texas Postgraduate School of Medicine will present a three day seminar, Current Trends in Gynecology; latest developments in this field will be stressed, and particular attention will be given to patient management. A wide range of subjects will be presented in lectures, panel discussions, and surgical demonstrations in the operating rooms of the University of Texas M. D. Anderson Hospital and Tumor Institute. One of the guest lecturers will be Dr. Hans L. Kottmeier, Stockholm, Sweden. Queries concerning the course may be directed to the Dean, 410 Jesse Jones Library Building, Houston 25.

Medical Advisory Committee Named

The newly named medical advisory committee to the Board of Trustees of the Southwestern Medical Foundation consists of Drs. George M. Jones, chairman; Guy T. Denton, Jr.; and T. Haynes Harvill, all of Dallas.

OF GENERAL INTEREST

PERSONALS

Dr. Howard O. Smith, Marlin, President-Elect of the Texas Medical Association, has received the Andy Anderson Humanitarian Award which is given annually at the state convention of the Disabled American Veterans. He is the first person to receive this award in the form of a trophy; it is a memorial to the late Andy Anderson, Houston newspaper man, who displayed outstanding interest in disabled veterans.

Dr. Walter Krohn, Dallas, presented a paper at the third International Congress of Clinical Pathologists in Brussels in July. Sol Haberman, Ph.D., Dallas, was co-author of the paper.

Dr. Charles M. Pearce, Dallas, was honored recently by the Dallas Federal Business Association for his unusual contributions in promoting and guiding the medical program of the Dallas Veterans Administration regional office during the past several years.

Dr. Alfred H. Hill, San Antonio, has been elected president of the board of directors of the Community Guidance Center of Bexar County, an organization for the treatment of emotionally disturbed children. Physicians who are new board members are *Dr. Edith M. Bonnet,* and *Dr. Virginia S. Stovall.*

Dr. C. Scott, San Antonio, is a new fellow of the American Academy of Pediatrics.

Dr. George E. Clark, Jr., Austin, will discuss "Coronary Vasodilators and Cardiotonic Drugs" in a panel during a refresher course for Texas pharmacists to be conducted November 15-16 in Austin at the University of Texas College of Pharmacy.

Texas physicians who were certified in May by the American Board of Obstetrics and Gynecology are *Drs. Dean D. Curtis, Mary L. Magee, Matthew H. Talty,* and *Nathan H. Topek,* all of Houston; *Grover C. Nabors, Graham L. Pierce, Jr.,* and *Jack A. Pritchard,* Dallas; *Tom C. Burditt,* Abilene; *Chester R. Johnson,* Midland; *Warren T. Kable,* Wichita Falls; *Joanne Kenner,* Mineral Wells; *R. W. Lundgren,* San Antonio; *Samuel J. Merrill,* Brownsville; and *Jack L. Turner,* Fort Worth.

Dr. W. W. Bondurant, Jr., is the new president of the San Antonio Heart Association.

Dr. James Y. Bradfield, Dallas, is a new vice-president of the Flying Physicians Association.

Dr. Elihu I. Klein, Galveston, was married June 9 in Fort Worth to Miss Frances Fox.

Dr. Elliott Blumberg, now stationed in El Paso, will be married September 22 in Borger to Miss Louise Elizabeth Voet.

Miss Isabelle Lucie Burow, daughter of *Dr. and Mrs. F. Paul Burow,* Killeen, was married August 17 to Leonard Richard Wrentz, Jr. The couple will live in Houston.

A daughter, Julia, was born to *Dr. and Mrs. James B. Walker,* Houston, June 12.

Dr. and Mrs. Riley N. Riddle, Alice, are new parents of a boy born June 11. A girl was born June 2 to *Dr. and Mrs. Lyndon Moses,* El Paso.

Glover Hargis, grandson of *Dr. W. H. Hargis,* San Antonio, was drowned July 4 at a boys' camp in Colorado. His father was the late Dr. Huard Hargis of San Antonio. He is survived by his mother, three sisters, and a brother.

Asian Influenza in Texas

Dr. Henry A. Holle, Austin, Commissioner of Health, has issued the following statement regarding possible epidemic of Asian influenza in Texas:

> Three isolates of the Asian strain of influenza have been made by the Texas State Department of Health laboratories as of August 1. Approximately 40 additional laboratory specimens presently are under study.
>
> In addition to influenza-like illnesses among Boy Scouts returning from the Valley Forge Jamboree in July, sporadic cases now are being reported from several areas of the state. Based on available evidence, a major statewide outbreak could well occur in the early fall.
>
> Both monovalent and polyvalent vaccine production is being rushed by manufacturers and probably will be available in September. The State Health Department will not be able to offer vaccine for general distribution and will be limited to supplying vaccine to its own personnel.
>
> Cases experienced thus far have been relatively mild; however, there is no assurance that the virus will not become increasingly virulent with repeated passage, bringing higher mortality rates.
>
> Military experience indicates that influenza vaccine is effective; therefore, physicians are urged to recommend vaccination to their patients. Prudence suggests that physicians themselves and allied professionals be immunized as soon as possible in preparation for whatever may be required of them in event of an influenza emergency.

At the national level, the American Medical Association has appointed a committee to promote nation wide preparedness programs in case epidemics break out. The committee plans to inform all physicians, through state and county medical societies, how to deal with any Asiatic influenza epidemic; urge state and county medical societies to prepare and develop stand-by programs and plans to cope with any epidemic should it occur; formulate plans at the national level to utilize all medical personnel, regardless of type of practice, in time of an influenza emergency, and coordinate state and local programs with public health agencies and health departments.

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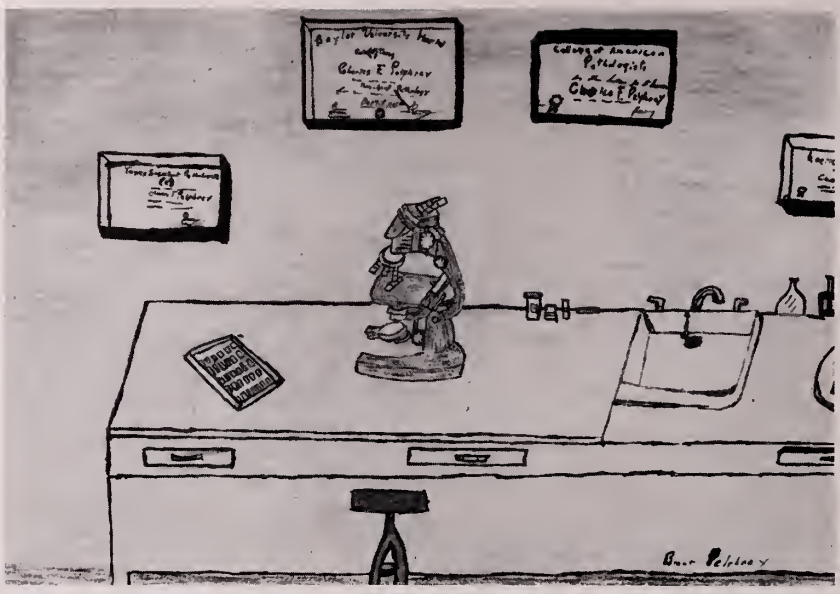
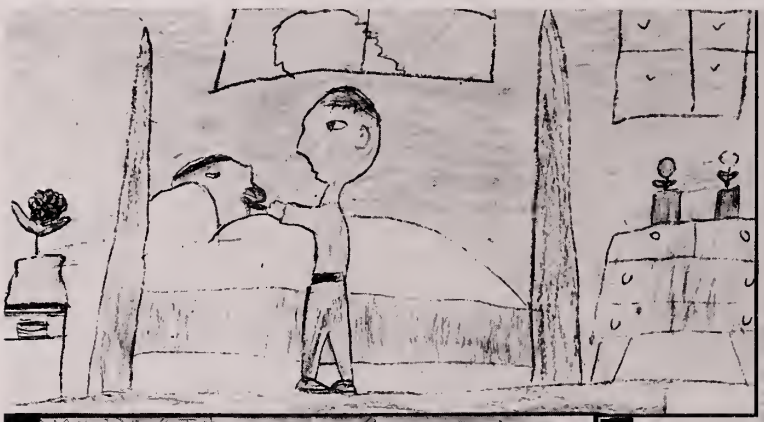
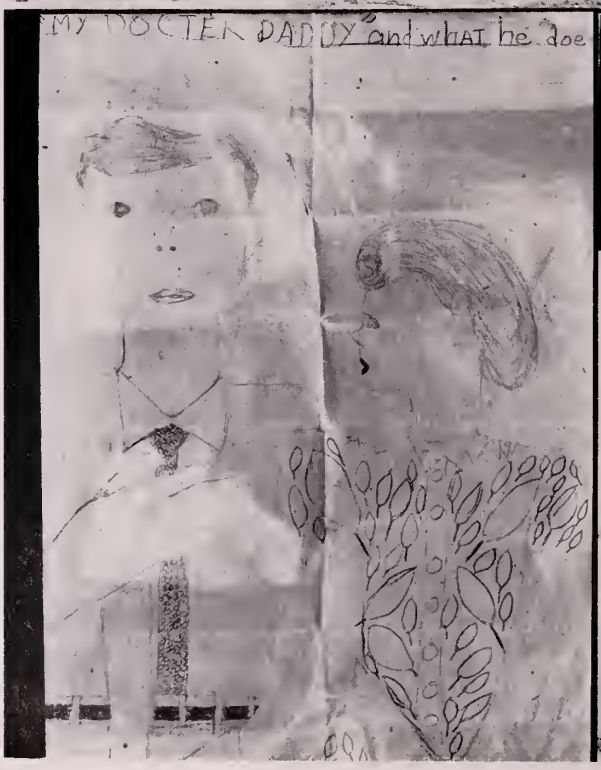
Approximately 28,000 more professional nurses are at work today in this country than there were two years ago. An additional 70,000 are needed to reach the reasonable goal of 300 professional nurses per 100,000 population.—American Nurses' Association.



Charles Pelphrey, 10, Austin, won fourth prize in the children's art contest with his drawing of a laboratory (left). Fifth place winners (below) were pictures by Dan Hardt, 7, Bastrop (upper left); Chris Fair, 5, Greenville (upper right); Paul Legett, 10, Austin (lower left); and Cheri Whitehouse, 5, Cleburne (lower right).





TEXAS CHILDREN RANK AS ARTISTS

Five Texas children were among 96 from all parts of the nation who won prizes in an art contest for doctors' children sponsored by Nepera Laboratories. There were 2,766 entries, and the winning drawings were displayed at the annual convention of the American Medical Association in New York early in June. They then were placed on exhibition throughout July in the Cleveland Health Museum.

The Texans, their ages, prizes, and parents, are:

Charles Pelphrey, 10, fourth prize in the 8 to 11 group, son of Dr. and Mrs. Charles F. Pelphrey, Austin.

Paul Legett, 10, fifth prize in the 8 to 11 age group, son of Dr. and Mrs. Martin P. Legett, Austin.

Dan Hardt, 7, fifth prize in the 6 to 7 age group, son of Dr. and Mrs. S. M. Hardt, Bastrop.

Chris Fair, 5, fifth prize in the 5 and under age group, daughter of Dr. and Mrs. R. H. Fair, Greenville.

Cheri Whitehouse, 5, fifth prize in the 5 and under age group, daughter of Dr. and Mrs. W. R. Whitehouse, Cleburne.

Prizes in each age group were: first, $500 savings bond; second, $100 savings bond; third, $50 savings bond; four fourth prizes, $25 savings bonds; and 25 fifth prizes of art supply kits. Each entrant also received a certificate of merit with a letter of commendation from the president of Nepera Laboratories, Dr. Leonard A. Scheele, former surgeon general of the United States Public Health Service.

BENEFIT PAYMENTS RISE

More than $3 billion of the nation's health care bill will be paid in 1957 through voluntary health insurance programs, according to a report by the Health Insurance Council.

The council estimates that in Texas as of July 1, 1957, more than 5,250,000 persons were protected by some form of health insurance. Some 4,876,000 persons were protected against the cost of hospital expenses through voluntary health insurance programs; 4,749,000 were covered for surgical expenses; and 2,907,000 had policies covering regular medical expenses.

In the past eight years, the proportion of the nation's total medical expenses met by voluntary health insurance has increased three times as fast as the proportion of Americans holding such insurance, according to the Health Information Foundation.

Hospital Room Rent Up

Room rates in United States general hospitals rose about 6 per cent in the past year, according to an annual survey just completed by the American Hospital Association. Lowest average rates were found in the West South Central region, including Arkansas, Louisiana, Oklahoma, and Texas: $11.53 for single room, $8.96 for two-bed room, $7.49 for multibed rooms.

Death Rates at All-Time Low

All-time low death rates were recorded in 1956 for tuberculosis, maternity, the childhood diseases, suicide, and homicide, statisticians of the Metropolitan Life Insurance Company report on the basis of experience among the company's industrial policyholders.

In addition, the poliomyelitis death rate among these insured dropped to half that for 1955—or to only .3 per 100,000. This reduction paralleled the drop in the number of cases of the disease reported in the general population of the United States.

Mortality from all causes among industrial policyholders continued at the record low level of the two preceding years, death rate for all ages combined being 6.2 per 1,000 in each of the last three years, compared with 6.5 in each of the three years, 1951-1953.

The cardiovascular-renal diseases accounted for a little more than half the total deaths among industrial policyholders in 1956. Second were cancer and allied conditions, responsible for slightly more than one-fifth of the deaths, while accidents ranked third.

Death rate from the principal communicable diseases of childhood—measles, scarlet fever, whooping cough, and diphtheria—reached a new low of .2 per 100,000 policyholders; pregnancy and childbirth mortality, despite the record birthrate, was down to .9 per 100,000; suicide and homicide rates were low at 5.6 and 2.4 per 100,000 respectively.

Accident fatalities increased from 35.1 to 35.6 between 1955 and 1956, the survey shows.

New Technique for Curare Use

Development of a technique which enables doctors to make more effective use of curare has won a national award for Mrs. Bernice Elert, medical technologist at St. Paul, Minn. Her new method enables doctors to determine how long curare remains effective in the patient's body. This involves extraction of the drug from blood plasma by means of an organic liquid in an alkaline medium. The liquid is mixed with a dilute acid and the curare transfers to it. It can then be measured in a spectrophotometer with ultraviolet light.

Mrs. Elert received her award at the recent convention of the American Society of Medical Technologists.

Symposium on Parkinson's Disease

A group from St. Barnabas Hospital describes and tells the effects of anterior choroidal artery occlusion and chemopallidectomy in the treatment of Parkinson's Disease. These procedures are evaluated and the careful selection of candidates for these procedures is stressed.—Cooper, Irving S., J. Am. Geriatric Soc., Dec., 1956.

Serotonin Found in Lungs

Serotonin has been found, with histamine, in the lungs of laboratory animals, indicating that this muscle-contracting "hormone" may share with histamine responsibility for allergic respiratory disturbances such as asthma.

Public Health Service biochemists who made the findings at the National Heart Institute in Bethesda, Md., also report from studies in rabbits that serotonin is released into the blood along with histamine in experimentally produced allergic reactions (anaphylactic shock).

Institute scientists are now concerned with learning what role, if any, serotonin may play in human allergic disturbances. Technical limitations of the analytical apparatus used to detect serotonin in tissues have prevented demonstrating it in the human lung, but it is expected that this problem will soon be overcome.

No Cure in Sight for "Heedless Horsepower"

"Heedless horsepower" is the new deadly disease which has the American people in its grip and for which no miracle drug is in sight, say The Travelers Insurance Companies of Hartford, Conn. A new booklet released by the group reveals that (1) more than 52,000 Americans were injured in car-bicycle mishaps in 1956; (2) 40,000 Americans were killed in 1956 traffic accidents, (3) speeding was blamed for 13,830 deaths on United States highways in 1956; (4) men were drivers in 89.7 per cent of the year's fatal accidents, (5) more than 22 per cent of 1956 U. S. highway deaths occurred on Saturdays and more than 56 per cent on week ends, and (6) nearly 28 per cent of U. S. drivers involved in 1956 fatalities were less than 25 years old.

Rehabilitation Grant

The World Rehabilitation Fund has obtained a $5,000 grant from Smith, Kline, and French Laboratories to permit a physician from England to come to the United States for a minimum of one year's training in rehabilitation of the physically handicapped.

The American President Lines also has given an international scholarship for a Philippine doctor to study rehabilitation at New York University Bellevue Hospital for a minimum of one year.

The World Rehabilitation Fund is a new voluntary organization to stimulate understanding through sponsorship of international projects in rehabilitation of the physically handicapped. Grants will be allocated to consultation, specialized training, information to the public, and regional meetings.

Clinical Ability Related To Business Efficiency

The doctor who organizes his office most efficiently is generally the one who gives his patients the best medical care according to a report in the August issue of *Medical Economics*.

The article concludes, "The way a man sets up and runs his practice seems to be a good indication of his feeling about medicine. A handsome office and gleaming equipment can't make him a good doctor. But the fact that he invests in such things usually shows that he wants to give his patients the best possible care."

There is much evidence that the immunity resulting from primary infection in childhood is bought at a great price. The risks that it entails are not small, since tuberculosis infections that remain latent during the early years of life may flare up in the form of overt disease after puberty.—René Dubos, Am. Rev. Tuberc., August, 1956.

"It may come as a surprise to many that mental illness has probably the highest recovery rate of any group of illnesses today. In my own state of Kansas, for example, where citizens and politicians have developed active treatment centers from what had once been merely custodial institutions, four of every five patients admitted to a mental hospital for the first time goes home within a year of his admission."—Dr. William C. Menninger, General Secretary, The Menninger Foundation.

MEMORIAL LIBRARY

MEDICAL ECONOMICS BIBLIOGRAPHIES

II. Insurance*

Life insurance has been defined as a "policy on human life," an instrument by which money is paid upon the death of the insured. Life insurance can be found in the Roman Collegia, where the guilds made provisions for decent burials of their members. The earliest life insurance policy was issued in 1583, when a number of merchants of London subscribed to an insurance policy, for a period of 12 months, on the life of William Gybbons, described as a citizen and salter of London.

In 1762, the Equitable Society of London issued policies granting insurance for the duration of life. Premium rates were graduated according to the age of the person insured.

The first life insurance company in the United States was the Presbyterian Ministers' Fund of Philadelphia, which was organized in 1717. Life insurance as we know it today was started with the organization of the Mutual Life Insurance Company of New York, in April, 1842, which was patterned after the Equitable Life Assurance Society of London. In 1951, there were approximately 600 life insurance companies in the United States.

The following articles about insurance have appeared in recent journals and all may be obtained from the Memorial Library of the Texas Medical Association.

Azoy, P. H.: Life Insurance; Facts and Frills, M. Times 84:566-570 (May) 1956.

Burnham, P. J.: The Insurance Examination, Rocky Mountain M. J. 53:1014-1019 (Nov.) 1956.

Davey, Chuck: "Boxing Your Insurance Problems," Virginia M. Month. 83:557-558 (Dec.) 1956.

Dorsett, J. D.: Insurance for the Physician, J.A.M.A. 156: 1448 (Dec. 11) 1954.

Edmiston, R. H.: How to Select Disability Insurance, West. J. Surg. 64:610-612 (Nov.) 1956.

Golden, J. R.: Role of the Life Insurance Trust in Estate Planning, J.A.M.A. 158:1392-1394 (Aug. 3) 1955.

Levy, Michael H.: Can You Pass This Insurance Test? M. Econ. 34:280-290 (Feb.) 1957.

Levy, Michael H.: Do You Own the Right Life Insurance? M. Econ. 34:190-214 (Jan.) 1957.

Miller, P. A.: Life Insurance as an Investment, J. Kansas M. Soc. 56:682-693 (Dec.) 1955.

Ross, R. E.: Avoid "Chronic Termititis"—In Insurance! GP 11:131-133 (April) 1955.

Ross, R. E.: Can You Buy $10,000 Life Insurance? GP 10:136-139 (Nov.) 1954.

Sherwood, H. C.: Professional Courtesy Bows to Blue Shield, M. Econ. 33:229-234 (Jan.) 1956.

Sullivan, D. E.: Why I Bought Bank-Loan Life Insurance, M. Econ. 33:188-200 (Feb.) 1956.

Warme, J. L.: How to Insure Complete Liability Coverage, West. J. Surg. 64:612-614 (Nov.) 1956.

Weber, Gerald F.: The Doctor and His Dollar, Bull. Los Angeles Co. M. Ass. 87:18-19, 76-80 (June 20) 1957.

**This is the second of a series of four bibliographies on medical economics which are being published in the* Journal. *Topics are investments, insurance, partnerships, and fees.*

GIFTS TO THE LIBRARY

Dr. E. W. Breihan, Dallas, 2 journals.
Dr. C. H. Brownlee, Austin, 152 journals.
Dr. D. H. Cooper, Georgetown, 37 books; 59 journals.
Dr. J. E. Johnson, Austin, 7 journals; reprints.
Dr. Heinrich Lamm, La Feria, reprints.
Dr. Albert McCulloh, Brady, 5 bound journals; 71 journals.
Dr. Donald E. Pohl, Austin, 21 journals.
Dr. Morris Polsky, Austin, 1 book; 13 journals.
Dr. Lee F. Scarborough, Austin, 98 journals.
Mrs. J. W. Ward, Greenville, 83 journals; 6 books, reprints.
L. A. Williams, Austin, 1 tape recording.
Dr. David R. Womack, Austin, 72 journals; 5 books.

TAPE RECORDING

Effects of Sitosterol on Serum Cholesterol

By S. W. Hoobler.

★ Motion Pictures

The Doctor Defendant

Black and white, sound, 34 minutes, 1957.

The second in the "Medicine and the Law" film series produced by William S. Merrell Company in cooperation with the American Medical Association and the American Bar Association, this movie presents in concise and dramatic terms the stories of four doctors who find themselves cast in the disturbing role of "The Doctor Defendant." In reviewing these cases, the film also demonstrates how a county medical society professional liability review committee functions.

Complete Voginol Repoir—A Simplified Approoch

Sound, color, 20 mniutes, 1956.

A simplified approach to complete vaginal repair is demonstrated in this film prepared by Drs. Stanley F. Rogers, Jack Moore, and Warren Jacobs of the Department of Obstetrics and Gynecology, Baylor University College of Medicine and Methodist Hospital, Houston. Although it is based on procedures developed and reported by many authors, the technique demonstrated has been simplified, is attended by little blood loss, and can be performed in a relatively short time.

★ Books

BOOKS NEWLY ACQUIRED

Askey, John Martin: *Systemic Arterial Embolism,* New York, Grune & Stratton, 1957.

Carter, Charles F., and Smith, Alice Lorraine: *Principles of Microbiology,* ed. 3, St. Louis, C. V. Mosby, 1957.

Chauvois, Louis: *William Harvey, His Life and Times,* New York, Philosophical Library, 1957.

Ciba Foundation Symposium: *Chemistry and Biology of Purines,* Boston, Little, Brown & Co., 1957.

Forkner, Claude E., Ed.: *Practitioners' Conferences Held at the New York Hospital Cornell Medical Center,* vol. 6, New York, Appleton-Century, 1957.

J.A.M.A. Clinical Abstracts of Diagnosis and Treatment, New York, Grune & Stratton, 1957.

Litzenberg, Jennings C.: *Synopsis of Obstetrics,* ed. 5, St. Louis, C. V. Mosby, 1957.

Masserman, J. H., and Moreno, J. L., Ed: *Progress in Psychotherapy,* New York, Grune & Stratton, 1957.

Redisch, Walter: *Peripheral Circulation in Health and Disease,* New York, Grune & Stratton, 1957.

Rifkin, Alfred H.: *Schizophrenia in Psychoanalytic Office Practice,* New York, Grune & Stratton, 1957.

Sigler, Louis H.: *Electrocardiogram,* ed. 2, New York, Grune & Stratton, 1957.

Talbott, John H.: *Gout,* New York, Grune & Stratton, 1957.

Year Book of Neurology, Psychiatry and Neurosurgery, 1956-1957, Chicago, Year Book Publishers, 1957.

BOOK NOTES

Surgicol Physiology of the Adrenol Cortex

JAMES D. HARDY, M. S., M. D., F.A.C.S., *Professor and Chairman, Department of Surgery, and Director of Surgical Research, University of Mississippi, Jackson. 191 pages. $5.75. Springfield, Ill., Charles C Thomas, 1955.*

This brief but concise resume of adrenocortical physiology relative to the surgical patient is highly recommended for the surgeon's library. In an era in which both ACTH and cortisone are prescribed liberally and with impunity for conditions ranging from baldness to bunions, and our medical meetings are filled with learned discussions on total eosinophil counts, 17-ketosteroids, and urinary corticoid determinations, such a book should be welcomed as a source of practical information.

Beginning with an outline of adrenocortical function and the physiologic effects of adrenocortical stimulation, Dr. Hardy shows the effects upon the organism of a single operation, of multiple staged operations, of extensive thermal burns, and of adrenocortical reserve noted in malnourished cancer patients. He lists and describes pertinent data regarding the diagnostic and prognostic value and interpretation of total eosinophil response to ACTH stimulation. Urinary corticoid excretion and 17-ketosteroid measurements are discussed as they affect alteration in adrenocortical function.

The chapters on adrenocortical hyperplasia and hyperadrenocorticism are of special interest, as variation from the "classic" clinical picture of adrenocortical dysfunction demands early urinary corticoid determination if one is to arrive at a correct anatomic diagnosis at a time when specific therapy is most needed. Clinical syndromes are intelligently separated and identified. What one might expect from adrenalectomy for essential hypertension and malignant neoplasms is reviewed.

The chapter on ACTH and cortisone therapy are illuminating. Indications and contraindications for these "double-edged swords" are listed and described; certainly the author's word of caution is in order relative to the increased frequency of their use, since this would affect replacement therapy in any patient requiring definitive surgery.

—Dan M. Brown, M. D., Morton.

Clinical Studies in Neurology

HARRY LEE PARKER, M. D., F.R.C.P.I., *Professor of Neurology, Mayo Foundation, Graduate School, University of Minnesota, Rochester. 364 pages. $6.50. Springfield, Ill., Charles C Thomas, 1956.*

Written in conversational style, this is the most readable book on neurology I have ever read. It is a compilation of the clinical, ward-class sessions offered by Dr. Parker, at the Richmond Hospital, Dublin, Ireland, in connection with his teaching as professor of neurology at Trinity College, Dublin.

Essentially, every phase of clinical neurology is covered in that delightful lyrical style completely foreign to this hemisphere. This book particularly emphasizes the bedside or clinical approach in diagnosing and treating neurological problems. It is particularly accurate in regard to the clinical data, history of the case, and the neurological findings. An accurate correlation between the anatomical lesion and clinical findings is also notable. However, in the area of treatment it might be considered a little weak, but on the whole treatment of all treatable conditions is covered adequately.

There are no illustrations, but these are not missed because of the graphic picture of the patient that emanates from Dr. Parker's vivid presentation.

Perhaps the one bad thing about the book is an undercurrent of pessimism which, while correct, seems somewhat unusual in degree.

I feel this book is an excellent reference for bedside clinicians, although it might not interest the "ivory tower" neurologist or research man. It is particularly recommended for the general practitioner, internist, neuropsychiatrist, and anyone teaching neurology as it will offer many suggestions on how to make a lecture more entertaining.

The book is printed in readable type, and has an excellent binding.

—Jackson H. Speegle, M. D., Dallas.

Norodrenoline; Chemistry, Physiology, Phormacology and Clinical Aspects

U. S. VON EULER, M. D., F.A.C.P. (Hon.), *Professor of Physiology, Faculty of Medicine, Karolinska Institutet, Stockholm, Sweden. 382 pages. $11.50. Springfield, Ill., Charles C Thomas, 1956.*

This monograph contains a thorough and exhaustive treatment of the chemistry, physiology, pharmacology, and clinical aspects of noradrenaline. It is edited by Robert E. Pitts, M. D., Ph. D., professor of physiology and biophysics at Cornell University Medical College, and contains an introduction by Sir Henry H. Dale. It would seem without doubt to represent the greatest mass of evidence relating to the subject ever published under one cover. Its bibliography contains 750 references to publications, the majority of which have appeared since 1946. It is divided into 14 chapters and contains an author and subject index. It is an authoritative presentation of accumulated data on the suprarenal medullary hormone.

—Darrell B. Faubion, M. D., Austin.

Hunterdon Medical Center

The Story of One Approach to Rural Medical Care. RAY E. TRUSSELL, M.D., M.P.H., *former Director of Hunterdon Medical Center; Executive Officer of Columbia University School of Public Health and Administrative Medicine. 236 pages. Published for The Commonwealth Fund. Cambridge, Mass., Harvard University Press, 1956.*

Textbook of Gynecology

EMIL NOVAK, M.D., D.Sc. (Hon.), F.A.C.S., *Assistant Professor Emeritus of Gynecology, Johns Hopkins Medical School; and* EDMUND R. NOVAK, M.D., F.A.C.S., *Instructor in Gynecology, Johns Hopkins Medical School, Baltimore. ed. 5. 840 pages. $11. Baltimore, Williams & Wilkins, 1956.*

The Drs. Novak have done a worth-while job in bringing out the new edition of their textbook. The book is written in clear, concise language and is relatively easy to read. The subject is covered as fully as one could expect in a work of this type, but few if any details of operative technique are included.

The subject of genital carcinoma is well covered. The authors point out the controversy being waged between those who feel that preoperative irradiation followed by surgery is the treatment of choice and those who feel that surgery without preoperative irradiation is the treatment of choice. The authors let you take your choice, but it is apparent that they believe that preoperative irradiation plus panhysterectomy and bilateral salpingo-oophorectomy offers the best chance of effecting cure in these patients.

The chapter on sterility covers the subject reasonably well, although I feel that more emphasis should have been placed on the use of hysterosalpingography as a diagnostic aid. Treatment in sterility is covered briefly. Mention is made of irradiation of the ovaries or pituitary in the treatment of sterility and the fact that it should not be done. Many geneticists share this view. It may be of interest to know that the goats which were tethered on the island during the Bikini atomic bomb tests have now gone through nine to ten generations without mutants having been produced.

Generally speaking, this textbook is written with most emphasis being placed on pathology and diagnosis and with less on treatment. I feel this is wise. The book undoubtedly will continue to be a favorite in teaching institutions and among individual physicians seeking a ready reference. The bibliography is excellent.

—Gray E. Carpenter, M. D., El Paso.

Clinical Examinations in Neurology

Members of the Section of Neurology and Section of Physiology, Mayo Clinic and Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota, Rochester: JAMES A. BASTRON, M. D.; REGINALD G. BICKFORD, M. B.; JOB R. BROWN, M. D.; EDWARD C. CLARK, M. D.; KENDALL B. CORBIN, M. D.; DAVID D. DALY, M. D.; LEE M. EATON, M. D.; NORMAN P. GOLDSTEIN, M. D.; EDWARD H. LAMBERT, M. D.; CLARK H. MILLIKAN, M. D.; DONALD W. MULDER, M. D.; HARRY L. PARKER, M. D.; E. DOUGLAS ROOKE, M. D.; JOSEPH G. RUSHTON, M. D.; ROBERT G. SIEKERT, M. D.; JACK P. WHISNANT, M. D. *370 pages. $7.50. Philadelphia, W. B. Saunders Company, 1956.*

This contribution to the neurological literature conforms very well to the purpose as laid out in the preface "to facilitate . . . mastery of the clinical neurological examination" and "as a series of working blue prints."

The layout and planning of the various items seem to be comprehensive and adequate and follow a consistent pattern which should be useful not only to the novice but to the practitioner in any field of medicine. The large amount of space devoted to the study of the muscles and their functions seems to be well justified in view of the fact that in our present day practice there is so much traumatic involve-

ment of the extremities due to warfare, transportation accidents, and so forth. The forms utilized are certainly comprehensive. For the practical use of the general practitioner, all would not be useful but would serve a fine basis for the development of individual planning for each physician who uses diagnostic neurological techniques. The section on mental function and autonomic function certainly seems to have been cut to the bare minimum for a good study of the individual. At times there seems to be an excessive amount of preoccupation with what might be considered relatively minor tests, but this does not hold true in the over-all pattern.

One can readily say that not only could this volume be exceedingly useful to the student, but of particular importance to the general practitioner, neuropsychiatrist, and even the orthopedist.

—Charles H. Brown, M. D., Wichita Falls.

Organized Home Medical Care in New York City

A Study of Nineteen Programs by the Hospital Council of Greater New York. 538 pages. $8. Cambridge, Mass., published for the Commonwealth Fund by Harvard University Press, 1956.

This book is a comprehensive and detailed report of 19 hospital programs of organized home medical care in New York City conducted over a period of two years, 1953 to 1955.

The purpose of the book is to report one form of medical care provided on a somewhat experimental basis since organized home medical care for the indigent and medically indigent is not now widely provided over the country.

For some patients medical care is best satisfied by institutionalization, but some can be served better by care in familiar home surroundings with hospital services and facilities at their command. Interviews with patients in all walks of life reveal that home care patients are primarily elderly people. They overwhelmingly prefer home care to hospitalization when medical, nursing, and social workers provide services by visits in homes along with physical and occupational therapists where needed.

Types of services offered, objectives and personnel programs, administration and cost of services, and attitudes of patients and their families are some of the most informative chapters. Tables, charts, and answers to questionnaires give further statistics on home care.

The reader finds the program has been criticized in some aspects, but this does not mean home care is unworkable. A review of the potentialities will make it possible to formulate improved standards for operation through community planning along with the acceptance of the broader social and economic implications of home medical care.

A definite conclusion drawn from the "experimental study" states that provision of medical care should not be the responsibility of the Department of Welfare as its restrictive policies operate under procedures not compatible with adequate medical care.

—Albert G. Barsh, M. D., Lubbock.

The Accident Syndrome; The Genesis of Accidental Injury, A Clinical Approach

MORRIS S. SCHULZINGER, M.A., M.D. *234 pages. $6.50. Springfield, Ill., Charles C Thomas, 1956.*

Dr. Schulzinger sums up his study of accidents and accident proneness with some of these interesting findings.

The greater percentage of accidents are usually the affliction of male, young, irresponsible, and maladjusted persons. Their incidence shows a pattern of distribution from low in February to high in July and August, and in the same pattern from low at 5 a. m. to peak at 5 p. m. Accidents tend to be repeated at specific times and to certain parts of the body. More often they occur when the person is under stress or strain. These and many other findings form the theory of the accident syndrome. The author has made a study of accidents for the past 26 years and has covered 38,000 cases, as an industrial physician.

His conclusions are interesting and timely. For a student of accidents and particularly automobile accidents, the book is highly recommended.

The Stress of Life

HANS SELYE. *324 pages. $5.95. New York, McGraw-Hill, 1956.*

This volume by one of the great pioneers of medicine and the creator of the stress concept is addressed primarily to the general public. Dr. Selye develops the stress concept from antiquity through its evolution to the present complex theory incorporating the ideas of stress, the general and local adaptation syndromes, the endocrine adaptive hormones (ACTH, cortisone, etc.) and the manifold stressors which act on the body from birth to death.

The laboratory investigation of the stress mechanism is discussed along with the problems involved and their possible solutions. The book is all the more interesting because the author conveys so many of his highly personal thoughts and emotions throughout. One section describes the diseases of adaptation (cardiovascular diseases, digestive disorders, mental derangements) which apparently result from a failure in the stress fighting mechanism and discusses possible means of combating these diseases. Inflammation is covered in detail.

Dr. Selye explains his interesting "reaction theory" which postulates a subcellular functional unit which can exhibit the generally accepted characteristics of life, thus challenging the cell as the smallest functional unit of life.

The closing portions of the volume are devoted to the philosophy of life which the author has developed by his close association with the study of stress. In a sympathetic yet honest manner, Dr. Selye analyses the human animal's needs, motivations, and ultimate aims and demonstrates how the proper application of the principles of the stress concept may enable one to live a longer and more enjoyable life.

This reviewer feels that Dr. Selye's philosophic implications alone would make this volume well worth reading.

—Raymond H. Tull, Jr., M. D., Abilene.

The Initial Management of Thoracic And Thoraco-Abdominal Trauma

LAWRENCE M. SHEFTS, M.D., *Thoracic Surgery Consultant to Brooke Army Hospital, Fort Sam Houston; Co-Chief, Thoracic Surgery Service, Robert B. Green Memorial Hospital, San Antonio; Associate Professor of Surgery (Thoracic), University of Texas Postgraduate School of Medicine, Robert B. Green Memorial Hospital, San Antonio. 121 pages. Springfield, Ill., Charles C Thomas, 1956.*

An excellent review of the management of injuries of the chest is presented in this book. The opening chapter deals with the resuscitation of the injured patient. In this section, the author thoroughly covers the important points in evaluating and instituting therapy. The treatment and causes of shock associated with chest injuries is discussed. The management of various types of wounds such as tension pneumothorax, hemothorax, and sucking wounds of the chest are described. In this section, the author presents many

important details which should be of interest to any physician who might be called on to manage a chest injury.

The second section deals with penetrating wounds of the chest. Here the author discusses injuries to the various intrathoracic organs and their management. An interesting historical résumé of injuries to the heart is presented in this section along with the management of heart injuries.

In the third and fourth chapters, thoraco-abdominal injuries and closed injuries of the chest are discussed. The management of the flail chest in this section is especially worth while. With the increasing number of automobile accidents, the "flail chest" is encountered more and more often. This section thoroughly covers the management of this type of injury. The importance of tracheotomy with this type of injury is stressed, and methods for stabilizing the chest wall are reviewed.

In conclusion, the author presents a number of illustrative cases which are instructive as well as interesting reading. This book will be useful to any physician who may be required to manage thoracic trauma.

—E. S. Crossett, M. D., El Paso.

Cancer Cells

E. V. COWDRY, *Director, Wernse Cancer Research Laboratory, Washington University, St. Louis. 677 pages. $16. Philadelphia, W. B. Saunders, 1955.*

Dr. Cowdry, in his usual meticulous and thorough presentation, has taken the cancer cell and bombarded it from all angles. His bibliography consists of more than 3,200 references. Even to attempt a summary is impossible, since every paragraph contains important and interesting reading.

Dr. Cowdry begins his book with a description of the normal cells and their variation to their own and abnormal environments. He then compares the normal cell to the cancer cell from morphologic appearance, chemical properties, reactions to different environments and stimuli, methods of growth, and so forth. He even delves into the cancers of plants and animals. He discusses various carcinogens, listing about 400, and goes into great detail concerning many of these, discussing the possible methods of carcinogenesis, the time interval, and other pertinent facts. Practical problems, such as smoking and lung cancer are discussed in detail accompanied by accurate statistics. He presents, throughout the book, his own ideas and findings and, from his huge bibliography, those of the best brains in cancer research.

In this book are concise charts of statistics, beautiful illustrations, and many fine photographs and photomicrographs.

—Martha Madsen, M. D., Midland.

Sports Injuries Manual for Trainers and Coaches

DONALD F. FEATHERSTONE, *Member of the Chartered Society of Physiotherapy; Member of the Committee for Research into the Treatment of Athletic Injuries; Principal of the Athlete's Injury Clinic, Southampton; Late Assistant Physiotherapist, Physical Medicine Dept., Central Middlesex Hospital, London. 132 pages. $6. New York, Philosophical Library, 1956.*

Laboratory Tests in Common Use

SOLOMON GARB, *Assistant Professor of Clinical Pharmacology, Cornell University Medical College. 160 pages. $2. New York, Springer Publishing Company, 1956.*

Educating Spastic Children; The Educating And Guidance of Cerebral Palsied

F. ELEANOR SCHONELL, M.A., Ph.D., *Formerly Research Fellow, University of Birmingham, Department of Paediatrics and Child Health. 242 pages. $6. New York, Philosophical Library, 1956.*

This book is a monograph based on research in England, United States, Canada, Australia, and New Zealand. It presents a brief and concise review of the nature of cerebral palsy and a short history of the development of training facilities for cerebral palsied children in the countries named.

Part 2 of the book gives the results of a psychologic and medical survey of 354 cerebral palsied children in the Birmingham section of England. The researchers found that the probable incidence of this disease among school age children is about 1 per 1,000. A chapter on the use and interpretation of the Terman Merrill intelligence scale is interesting and informative. The author feels that the results of intelligence tests require careful evaluation because of the many interrelated factors, emotional and physical, present in these children which will influence their results. Also as the physical handicap increases the I. Q. decreases.

The third section of the book deals with the educational provision for cerebral palsied children. The type and level of education according to the degree of mental and physical ability is discussed thoroughly.

The fourth part of the book views the psychologic aspect of children with this disease and gives suggestions and ideas for parents in caring for their children with cerebral palsy.

This is a well written and informative book on a complex and frustrating condition. The book will be of special interest to those who deal daily with these children, especially psychologists, teachers, and therapists. Sections of the book would be of interest to the parents of cerebral palsied children also. This book can be highly recommended.

—T. C. McCormack, M.D., Austin.

Training of the Lower Extremity Amputee

DONALD KERR, B.B.A., *Director, National Institute for Amputee Rehabilitation, Lodi, N. J., and* SIGNE BRUNNSTROM, M. A., *Consultant in Amputee Training, Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, New York. 272 pages. $6.50. Springfield, Ill., Charles C Thomas, 1956.*

The two authors are well known in rehabilitation circles for their contributions toward the training of amputees. Mr. Kerr, himself an amputee, has set a fine example of athletic accomplishments for other amputees to follow. Miss Brunnstrom is a registered physical therapist of great experience with amputee training. Both have devoted most of the past 15 years to this subject.

The book is written concisely but clearly. The subject is covered completely and is profusely illustrated. It can serve as a guide equally well for physicians, technicians, and patients.

The problems that beset the new amputee are reviewed. His relations to his family and friends, his physician, the limbmaker, and his future employer are explained in order to quiet the many doubts that exist and in order to emphasize what responsibilities the amputee must accept.

The period between surgery and receiving the prosthesis should be a busy one with proper bed posture, early stump exercises, proper bandaging, conditioning the stump, strength-

ening the good leg, mastering crutches, building coordination, and conditioning the body as a whole, physically and mentally. These procedures are explained.

An orientation on prosthetics, detailed enough for physicians and patients but inadequate for limbmakers, describes below knee and above knee prostheses, their component parts, and materials used in construction. Their mode of operation and signs of misfit are analyzed. Good detail is given to the use of stump socks, putting on the limbs, and dressing.

Training procedures, including pre-walking exercises (for coordination, balance, and conditioning), walking, and activities of daily living are given separately for the single above-knee amputee, the hip disarticulation, the single and double below-knee amputee, the double (one above and one below-knee) amputeee, and the double above-knee amputee. Techniques are presented in great detail in outline form and are illustrated with both line drawings and photographs.

The book concludes with a chapter on techniques utilized in social dancing and participation in various sports.

—Oscar O. Selke, Jr., M. D., Houston.

Clinical Pathalagy; Applicatian and Interpretatian

BENJAMIN B. WELLS, M.D., Ph.D., *Director of Clinical Investigation, The Lynn Clinic, Detroit; former Professor of Medicine and Chairman of the Department of Medicine, Creighton University School of Medicine, Omaha. ed. 2. 488 pages. $8.50. Philadelphia, W. B. Saunders Company, 1956.*

The second edition of this excellent book has been revised and expanded with the incorporation of many medical advances of the past five years. Examples of new material are the discussions of the TPI test for syphilis, tubeless gastric analysis, uropepsinogen excretion, the milk-alkali syndrome, the starch tolerance test of pancreatic function, hereditary abnormalities of hemoglobin, radioiodine studies in thyroid disease, tests for plasma acetone, and hemorrhagic states during pregnancy. A tenth chapter, covering laboratory procedures suitable for average office practice, has been added.

This book is meant to be neither a textbook of medicine nor a textbook of clinical pathology, but is aimed at bridging the gap between such works. As the author states in his preface, it is offered to medical students and physicians as a guide in the application and interpretation of clinical laboratory studies.

The author in his introductory chapter stresses the intelligent, common sense use of laboratory tests as opposed to random, uncritical ordering which serves no purpose except to increase the work of the laboratory and the cost of medical care to the patient. This book can be highly recommended.

—W. N. Powell, M.D., Temple.

Drugs in Current Use, 1957

WALTER MODELL, M. D., F.A.C.P., *editor; Associate Professor, Clinical Pharmacology, Cornell University Medical College. 152 pages. $2. New York, Springer Publishing Company, 1957.*

A Dictianary of Dietetics

RHODA ELLIS, Ph.D., *Instructor of Foods and Nutrition, Department of Home Economics, Brooklyn College, New York. 152 pages. New York, Philosophical Library, 1956.*

Handbook af Pediatric Medical Emergencies

ADOLPH G. DESANCTIS, M. D., *Professor and Chairman of the Department of Pediatrics, Postgraduate Medical School, New York University-Bellevue Medical Center, New York. ed. 2. 389 pages. $6.25. St. Louis, C. V. Mosby, 1956.*

This second edition of the handbook constitutes a major revision in that much of the original text has been completely rewritten, and new illustrations and tables have been added to make it a more complete treatise. The chapters on metabolic emergencies, accident and poison prevention, genitourinary emergencies, and respiratory paralysis in poliomyelitis are all new. The excellently illustrated section on commonly used pediatric procedures has been expanded to broaden its scope.

The arrangement and format of the book is excellent, and the large type makes for easy reading, prompt orientation, and quick reference.

This volume is loaded with information that is immediately helpful in the handling of pediatric medical emergencies, and it will be appreciated by all physicians who are confronted with these conditions. The pediatrician or generalist who keeps this book on his desk will find himself referring to it frequently.

—Bob Alexander, M. D., Spur.

Soybeans for Health, Langevity and Ecanamy

PHILIP S. CHEN, Ph. D., *Professor of Chemistry, Atlantic Union College; with assistance of* HELEN D. CHEN, M. A., *National Science Foundation Fellow, Cornell University. 241 pages. $3. South Lancaster, Mass., Chemical Elements, Publishers, 1956.*

"Any plant which with one man's labor for a day will yield food furnishing enough calories to support a person for one year, enough protein to supply a year's need for five persons, enough calcium for two, and enough thiamine for the yearly requirements of seven people—such a plant is bound to win friends and influence people."

The soybean is a food that is as nearly perfect as cow's milk, but at the same time is rich in iron and vitamin C (when sprouted). Its milk is used as a substitute for cow's milk for individuals who are allergic to it.

This little book by Dr. Chen comes at an opportune time. The increasing incidence of cardiovascular disease has focused the attention of the medical profession on nutrition. The possible relationship of "bad fats" to cardiovascular disease is in the news.

The protein of the soybean is of high quality and resembles that of animal protein. Soy oil is 95 to 100 per cent digestible and consists almost entirely of triglycerides. It is an excellent source of the essential fatty acids now being referred to as vitamin F. Soybean oil contains large amounts of lecithin and fair amounts of fat soluble vitamins. Unlike animal fats whose sterol is cholesteral, thought to be a chief offender for arteriosclerosis, heart disease, and kidney stones, soybean oil contains phytosterol, which produces no known harmful effects on the human body. Seventy per cent of the sterols of the soy oil is sitosterol, which is now being detailed to the medical profession with a claim that it will decrease the cholesterol level of the blood.

This little book tells about all there is to know regarding the soybean. In addition to the nutritive values, it describes soy products, soybean culture, and preservation. It also includes a large variety of recipes. Every doctor interested in nutrition should read this book. It is easy to read and can be "digested" in an evening.

It is said that the future of medicine lies in the field of

prevention. I believe the greatest part of prevention in medicine lies in the field of nutrition.

The soybean is a wonder food. Unfortunately the soy oil in America has been hydrogenated, which changes a good fat into a "bad fat." Most of the oleomargarine and mellorine is made from hydrogenated soy oil. Hydrogenation destroys the essential fatty acids and produces a substance that is cheap and will keep. But undoubtedly the protective value of the natural oil is lost, and some of our best authorities believe that the hydrogenated oil is a direct cause of cardiovascular disease.

—Joe D. Nichols, M. D., Atlanta.

Textbook of Medical Physiology

ARTHUR C. GUYTON, D.M., *Professor and Chairman of the Department of Physiology and Biophysics, University of Mississippi School of Medicine. 1030 pages. $13.50. Philadelphia, W. B. Saunders Company, 1956.*

This text takes up physiology in an orderly and understandable manner such that the medical student and the practitioner alike can read it with ease and enjoy it at the same time they are coming abreast of the developments in this rapidly developing field. Even the use of radiation and isotopes in physiologic investigation comes in for limited discussion, which is at least an introduction in a proper manner to the medical student. The section on special fluid systems of the body — pleural, pericardial, synovial, peritoneal, ocular, and cerebrospinal—was thought to be unique in its organization, and it is highly recommended to anyone interested in this subject. The grouping together and discussion of subjects of related interest is characteristic of all systems covered by the entire book.

Because of its length, an adequate discussion of the book's entire contents is not possible, but for the inquiring mind that likes to know the basic fundamentals of body processes and how they function in health and disease, this book is recommended as informative. Electroencephalography is well illustrated. One might go on indefinitely citing newer developments which make this valuable reading for anyone who is 20 to 30 years away from his instruction in this subject in medical school.

The volume is printed on an excellent grade of paper with good type and timely illustrations. The state of Mississippi has just cause to be proud of having Dr. Guyton as its professor of physiology and biophysics.

—Joe C. Rude, M.D., Austin.

Diseases of the Skin

RICHARD L. SUTTON, JR., M. D., F. R. S. (Edin.), *Chairman of the Department of Dermatology, University of Kansas Medical Center. ed. 11. 1479 pages. $29.50. St. Louis, C. V. Mosby, 1956.*

This is the eleventh edition, the first complete revision in 17 years, of what has become a standard American classic among textbooks of dermatology. It is a big, comprehensive, yet discerning compendium of the vast areas today embraced within the scope of skin diseases, syphilis, and allied conditions. Augmenting his breadth of coverage of these extensive fields, Dr. Sutton continues to reveal an increasingly satisfying depth of perspective and critical analysis of current world thinking in dermatology.

There are a number of commendable features in this excellent book. The more important bibliographic references are inserted into the text itself, in ingeniously abbreviated forms. Supplementing these is accessory bibliographic material at the end of sections and chapters; many of the references are followed by a few staccato phrases, in parentheses, suggesting the areas covered by the article and its quality. Illustrations (of which there are 1,972) are frequent, of good quality, and nicely juxtapositioned. Charts are extensive, complete, and accurate.

The unique feature of this book, however, is the vigorous literary style and the effective, stimulating, often entertaining projection of the author's own views and personal conversation with an interesting consultant, rather than a formal pedagogic presentation. Dr. Sutton has a point of view and he effectively articulates it. It is well epitomized in the preface: ". . . the endeavor to reflect contemporary medical thinking and practice involves a variety of problems. These are problems that become more and more challenging as one measures the capacity of a human being against the quantity of dermatologic science (and fiction) that appears in print."

The book is highly recommended to general as well as to specialty practitioners, as a readable, authoritative, useful text.

—Morris Polsky, M. D., Austin.

Fifth Annual Report on Stress

HANS SELYE, M.D., Ph.D., D.Sc. (Hon.), F.R.S. (Canada), F.I.C.S. (Hon.), *Professor and Director, Institut de Medecine et de Chirurgie experimentales, Universite de Montreal, and* GUNNAR HEUSER, M.D. (Cologne), *Research Associate and Librarian of the Institut de Medecine et de Chirurgie experimentales, Universite de Montreal, Eds. 815 pages. New York, M. D. Publications, Inc., 1956.*

This is a reliable and inclusive guide to the recent literature on stress which supplements the previous volumes of this series. The book contains feature articles by 14 internationally famous specialists, including the unpublished findings of Dr. Hans Selye. There are more than 6,000 references arranged in a variety of indices for the convenience of the reader.

The annual report on stress is an important contribution to medical literature.

The Physician-Writer's Book

RICHARD M. HEWITT, M. D., *Senior Consultant, Section of Publications, Mayo Clinic. 415 pages. $9. Philadelphia, W. B. Saunders, 1957.*

Most physicians are not trained in writing; yet most doctors write. For the doctor who wishes to be as successful in his authorship as he strives to be in his practice, a handbook which calls attention to the basic principles of good exposition, whatever the subject matter, and to some of the pitfalls peculiar to writing about medical topics is an asset, if not a necessity.

Dr. Hewitt's book does not contain all the answers, but it contains a great many. Titles, legal risks, medicalese, how to test for quality in an article, tables and illustrations, ethics in writing, the verbal-arithmetical muddle—these are topics chosen at random from the extensive table of contents. One of the most interesting and helpful sections is on words "and topics suggested by them." Arranged in alphabetical order and covering 30 pages, this section of comment is typical of the facts, informality, and quiet humor that pervade the entire volume. Medical editors will find this manual a worth-while addition to their own reference shelf as well as a friend in the hands of their contributors. For those who do not write for publication but do prepare talks for medical societies or civic clubs, Dr. Hewitt's book also has application.

Care of the Long-Term Patient; Chronic Illness in the United States

Commission on Chronic Illness. 606 pages. $8.50. Published for the Commonwealth Fund. Cambridge, Mass., Harvard University Press, 1956.

Of special interest to all physicians in general practice as well as to gerontologists, this volume presents a wealth of information on chronic disease, illness, and disability in the United States, based on studies covering the period of June, 1949-June, 1956.

Long-term patients are "persons suffering from chronic disease or impairments . . . requiring care for a continuous period of at least 30 days in a general hospital or care for a continuous period of more than 3 months in another institution or at home, such care to include medical supervision and assistance in achieving a higher level of self-care and independence."

Estimate places long-term patients in the United States at 5.3 million of whom 1.1 million are in hospitals and institutions while 4.2 million live at home with relatives or in foster homes. This book details a Maryland survey (1952) of more than 4,000 long-term patients, primary diagnoses in order of incidence being heart, other circulatory, hemiplegia, fractures, arthritic conditions, paralysis and central nervous system disorders, mental illness, diabetes, neoplasms, and other diseases of less frequent occurrence.

This outstanding volume stresses the need for (1) keeping long-term patients at home whenever possible; (2) good medical care and experienced graduate nursing care; (3) research into nature and prevention of chronic disease; (4) rehabilitation and stimulating in patients the "will to live"; (5) more adequate financing and remuneration for professional care; (6) maintaining close physician-patient relationship.

—Carl F. Jordan, M. D., and
H. V. Helbing, M. D., Fort Worth.

Battle for the Mind

WILLIAM SARGANT. *263 pages. $4.50. Garden City, N. Y., Doubleday & Company, 1957.*

William Sargant spells out and illustrates the basic technique used by evangelists, psychiatrists, and brain-washers to disperse the patterns of belief and behavior already established in the minds of their hearers, and to substitute new patterns for them. A chapter on how to avoid being indoctrinated is included.

Dr. Sargant is physician in charge of the Department of Psychological Medicine at one of England's oldest and best known medical schools.

Clinical Roentgenology, IV, The Digestive Tract, The Gall Bladder, Liver and Pancreas, The Excretory Tract and Special Studies Emphasizing Differential Considerations

ALFRED A. DE LORIMIER, M. D., *Radiologist, Saint Francis Memorial Hospital, San Francisco;* HENRY G. MOEHRING, M. D., *Radiologist, Duluth Clinic, Duluth, Minn.;* JOHN R. HANNAN, M. D., *Radiologist, Cleveland, Ohio. 676 pages. $24.50. Springfield, Ill., Charles C Thomas, 1956.*

This volume considers the roentgenographic aspects of the digestive and genitourinary systems. The authors first discuss the abdomen and the information that can be derived from films made without the use of contrast media. This is followed by a comprehensive study of lesions of the esophagus, stomach, intestines, gallbladder, and biliary duct system. The sections on the genitourinary tract are excellent and include special aspects of the male genital tract as well as obstetrical and gynecological roentgenology.

Under each pathological condition there is included a general consideration of the disease process, clinical findings, roentgen manifestations, differential diagnosis, any pertinent laboratory findings, and a bibliography.

The authors have collected a tremendous amount of material and have presented it in a thorough yet concise manner. The illustrations are numerous and excellent. The publishers are to be congratulated on the quality of the reproduction and general format.

This book is recommended to radiologists as well as clinicians. It should prove most helpful to the latter in their consultations with the radiologist concerning x-ray examinations of their patients.

—George R. Hrdlicka, M. D., Pampa.

Clinical Management of Varicose Veins

DAVID WOOLFOLK BARROW, M. D., *Professor of Surgery, Marquette University School of Medicine; Assistant Director of Surgery, Milwaukee County Hospital, Milwaukee. Foreword by* ARTHUR W. ALLEN, M. D., *Former Chief, East Surgical Service, Massachusetts General Hospital, Boston. ed. 2. 169 pages. $6. New York, Paul B. Hoeber, Inc., Harper & Brothers, 1957.*

This small book is very enlightening. Chapter I gives the history and anatomy of varicose veins. "The Great Hippocrates is said to have advocated free incision into overlying skin, perhaps trying to get rid of harmful humors or hoping that cicatrization would obliterate the varix." From this quotation one can see that varicose veins and the treatment thereof goes back into antiquity. There are three fine pictures which provide a good anatomy lesson.

Chapter II discusses physiology and etiology of varicose veins. Here the author gives case histories and theories. Chapter III goes into the pathology of these varices.

Chapter IV describes symptomatology. The author goes into detail as to the cause of many of the symptoms. Chapter V describes examination of the patient. Here the Trendelenburg position with the tourniquet application is described.

Chapter V deals with varicose vein injection. The author gives the statistics and reasons for unsatisfactory use of this procedure. He tells how to select cases for this particular procedure, and discusses the sclerosing solutions that have been used.

Chapters VII, VIII, and IX describe methods of surgery of varicose veins in the long saphenous, short saphenous, and incompetent veins. The stripping technique is described in detail; many illustrations in all three groups are very helpful.

Chapters X and XI deal with the complications and management of sudden massive hemorrhage, subcutaneous ecchymosis, varicose ulcer, cellulitis, and varicose eczema. Thrombophlebitis and its frequency in varicose veins is also noted in the latter chapter.

Chapter XII goes into considerable discussion of after care of the varicose extremity and prophylaxis as to recurrence.

There is an enlightening bibliography given in chapters, which is indicative of the research that the author has put into preparation of this book. This small brochure would be helpful to anyone who does any type of varicose vein surgery.

—Ernest F. Cadenhead, M. D., Brownwood.

Dictionary of Poisons

IBERT MELLAN *and* ELEANOR MELLAN. *150 pages. $4.75. New York, Philosophical Library, 1956.*

The Menninger Story

WALKER WINSLOW. *350 pages. $5. Garden City, N. Y., Doubleday & Company, Inc., 1956.*

This is a very interesting story that deals primarily with three Kansas physicians who, like so many great men, started their careers with meager beginnings, and through the help of time, stability, and perseverance, established the world's leading psychiatric center in the middle of the plains of Kansas.

Dr. Charles Menninger started his career in medicine as a homeopathic physician, but feeling inadequate and insecure in medicine, he strived continuously until he attained an M. D. degree. Through his guidance and extraordinary drive, his sons were brought into the field of medicine and psychiatry. In this father and sons team, the field of psychiatry had its greatest champions, and much of its present day prestige is due to their efforts.

This realistic and moving account of the life and practice of the Menningers is not without humor and human interest, and should hold the attention of even the busiest physician.

—Curtis R. Haley, M. D., San Augustine.

The Morphology of Human Blood Cells

L. W. DIGGS, M. D., *Professor of Medicine and Director of Medical Laboratories, University of Tennessee and City of Memphis Hospitals; Consultant in Hematology, Armed Forces Institute of Pathology, Washington, D. C.;* DOROTHY STURM, *Instructor, Memphis Academy of Arts; and* ANN BELL, B. A., *Instructor in Medicine, University of Tennessee. 181 pages. $12. Philadelphia, W. B. Saunders Company, 1956.*

This atlas for medical students and technologists, illustrating the morphology of normal and pathological cells, places emphasis on the recognition of individual cells and their differential morphology rather than on the diseases of the blood and blood forming organs. Beautiful illustrations by Dorothy Sturm depict the blood cells in color with great attention to accuracy of detail.

The organizational charts showing the origin of cells and their relationship to the circulating blood are especially helpful. The diagrammatic representation of the fixed tissue cells of the bone marrow is also illustrated. The leukemia types, infectious mononucleosis, and myelomas are dealt with adequately by color plates. Lupus erythematosus likewise receives considerable attention and is interesting in its detail, as are other sections dealing with lipid diseases such as Gaucher's and Nieman-Pick. The section on techniques and methods dealing with the making of blood and bone marrow smears has many helpful suggestions as to preparation, staining, and analysis of findings.

This, together with a well selected list of authors and publications for collateral reading, will be a most appreciated atlas by laboratory workers everywhere.

—Joe C. Rude, M. D., Austin.

Medical Writing

WALTER C. ALVAREZ; HUGH CLEGG; FELIX MARTI-IBANEZ; HANS SELYE; *and* HENRY E. SIGERIST. *66 pages. New York, M D Publications, Inc., 1955.*

As anyone who reads this review will perceive, a rich style of medical writing is not acquired simply by reading a book. Each of these eminent authors has his own style and manner of presentation, and all are effective.

It is the reviewer's opinion that the information to be gained in reading such a monograph is enhanced if one has had the privilege of hearing one of these gentlemen speak, for the personalities involved are colorful indeed.

Each individual handles his subject with clarity and directness and gives helpful suggestions for anyone who aspires to medical writing. If the fundamental principles involved were strictly followed, our articles in the literature would be more informative and more accurately reported. In short, more time would be taken in writing a good presentation; less of the reader's time would be consumed in obtaining the desired information; and our journals would be less voluminous.

—Joe C. Rude, M. D., Austin.

ORGANIZATION SECTION

★ Texas Medical Association

PR, Indoctrination Programs For Executive Council Week End

New members of the Texas Medical Association will learn the purposes, duties, and services of their organization during the second Indoctrination Program, which will be held Saturday, September 7, in Austin. Also on the agenda for the week end is the third annual Public Relations Conference for officers of county medical societies, meetings of various councils and committees of the Association, presentation of the General Practitioner of the Year Award to Dr. Bryan of Dublin, and the convening of the Executive Council September 8.

Guest speakers for the Public Relations Conference will be Leo E. Brown, Chicago, executive assistant to the general manager in charge of public relations, American Medical Association; Dan J. Forrestal, St. Louis, president, public Relations Society of America; and Melvin T. Munn, Dallas, director of public relations, Blue Cross-Blue Shield of Texas. Sessions of the conference will be designed to aid county societies in planning effective public relations programs at the local level.

Besides explanations of the functions of the Association, the indoctrination program will include talks on medical economics, health insurance, ethics, legislation, workmen's compensation, and legal aspects of practice.

Councils and committees of the Association will meet Friday evening and all day Saturday, and a hospitality hour in the evening will complete the day's activities.

Sunday, the Executive Council will meet to hear reports of council and committee meetings.

3 of 4 TMA Members Are Veterans

Of the 4,855 members of the Texas Medical Association who have returned personnel data forms to the headquarters office since last November, 3,788 indicated they have been in military service. Another 201 members are known from other types of records to have been in the armed forces, but information on military service is not available on all of the 7,550 Association members.

Public Relations Conference

Texas Medical Association Headquarters Building, Austin
Saturday, September 7, 1957

Morning Session, 10:30 a. m.

Call to Order—JOE R. DONALDSON, M. D., Pampa, Chairman, Committee on Public Relations.

Keynote for Conference—DENTON KERR, M. D., Houston, President, Texas Medical Association.

MR. BROWN

The Bell Tolls—LEO E. BROWN, Chicago, Executive Assistant to the General Manager in Charge of Public Relations, American Medical Association.

Presentation of General Practitioner of the Year—DR. HOWARD O. SMITH, M. D., Marlin, President-Elect.

Basic PR Projects Which Every County Medical Society Should Have (Panel Discussion).
Glenn D. Carlson, M. D., Dallas, Moderator.

1. *Public Grievance Committees*—R. MAYO TENERY, M. D., Waxahachie.
2. *Emergency Medical Care*—CHARLES R. YOUNKIN, M. D., Houston.
3. *Medical Economics and Medical Service: Promotion of Voluntary Health Insurance and Achieving Greater Understanding of the Cost of Medical Care*—EVERETT C. FOX, M. D., Dallas.
4. *Telling Our Story to the Public: Press, Radio, and Television*—A. FLETCHER CLARK, JR., M. D., San Antonio.

Discussion Period.

Afternoon Session, 2:00 p. m.

What Impression Do We Make?—DAN J. FORRESTAL, St. Louis, President, Public Relations Society of America.

MR. FORRESTAL

What's New in County Society PR? (Panel Discussion).
VAN D. GOODALL, M. D., Clifton, and THOMAS L. ROYCE, M. D., Houston, coordinators.

1. *Grievance Committee Procedures*—M. C. CARLISLE, M. D., Waco.
2. *Navarro Plan for Medical Representation in Community Affairs*—PAUL H. MITCHELL, M. D., Corsicana.
3. *Science Fairs in Texas*—MRS. WILLIAM D. NICHOLSON, Freeport.
4. *The Auxiliary and Public Relations*—MRS. GEORGE R. HERRMANN, Galveston.
5. *Liaison and Cooperation Between Doctors and Lawyers*—HAL V. NORGAARD, M. D., Denton.
6. *Health Education Programs*—J. COLLIER RUCKER, M. D., Jacksonville.
7. *Poison Control*—A. L. EXLINE, JR., M. D., Austin.

MR. MUNN

Introduction of Dr. F. J. L. Blasingame, Newly Appointed General Manager of the American Medical Association—DR. MILFORD O. ROUSE, M. D., Dallas.

Something for the Folks—MELVIN T. MUNN, Dallas, Director of Public Relations, Blue Cross-Blue Shield of Texas.

Evening Program, 6:30 p. m.

Hospitality Hour—Maximilian Room, Driskill Hotel. Courtesy of Charles O. Finley and Company.

Indoctrination Program

Texas Medical Association Headquarters Building, Austin
Saturday, September 7, 1957

Morning Program, 9:00 a. m.

Registration and Coffee Hour.

Call to Order—DAVID W. CARTER, JR., M. D., Dallas, Vice-President, Texas Medical Association.

An Accounting of Stewardship: What Happens to Your $50 Dues?—R. W. KIMBRO, M. D., Chairman, Board of Trustees.

Preserving Private Practice Through United Action and Positive Public Relations—C. LINCOLN WILLISTON, Austin, Executive Secretary.

Serving the Doctors of Texas—DONALD M. ANDERSON, Austin, Assistant Executive Secretary.

A Message from the President—DENTON KERR, M. D., Houston, President.

Presentation of General Practitioner of the Year—DR. HOWARD O. SMITH, M. D., Marlin, President-Elect.

The Bell Tolls—LEO E. BROWN, Chicago, Executive Assistant to the General Manager in Charge of Public Relations, American Medical Association.

Medical Economics Considerations in the Practice of Medicine—HARVEY RENGER, M. D., Hallettsville, Chairman, Council on Medical Economics.

Voluntary Prepayment Health Insurance—ROY T. LESTER, M. D., Dallas, Medical Director, Blue Cross-Blue Shield of Texas.

Luncheon, 12:00 Noon

Afternoon Program, 1:25 p. m.

Medical Ethics Considerations in the Practice of Medicine—FRANKLIN W. YEAGER, M. D., Corpus Christi, Chairman, Board of Councilors.

Legislative Issues of Medical Interest in Congress and the State Legislature—G. W. CLEVELAND, M. D., Austin, Chairman, Council on Medical Jurisprudence.

Workmen's Compensation Laws—SMITH PETTIGREW, Dallas, Medical Coordinator, Texas Employers Insurance Association.

Legal Aspects of Your Practice: Malpractice and How to Avoid It—PHILIP R. OVERTON, Austin, General Counsel.

The Case of the Doubting Doctor (motion picture).

Coffee Hour.

Introduction of Dr. F. J. L. Blasingame, Newly Appointed General Manager of the American Medical Association—DR. MILFORD O. ROUSE, M. D., Dallas.

Something for the Folks—MELVIN T. MUNN, Dallas, Director of Public Relations, Blue Cross-Blue Shield of Texas.

Evening Program, 6:30 p. m.

Hospitality Hour—Maximilian Room, Driskill Hotel. Courtesy of Charles O. Finley and Company.

★ County Societies

County Societies Report Public Relations Activities

Of 90 county medical societies in Texas whose officers replied to a public relations questionnaire, 59 are active in public service projects. These ranged from poliomyelitis inoculations to science fairs and included such activities as diabetic clinics, work with civic clubs, and school health programs. The questionnaire was sent from the Texas Medical Association headquarters in Austin.

Of the counties that replied, 64 have a public relations chairman and 26 do not. Fifty-one have active emergency call panels and 39 do not, and in answer to the question, "Does your community know this?" 55 replied "yes" and 29 replied "no." Sixty-one counties reported having an active public grievance committee. Provision of a speakers' bureau for lay programs is not a widespread activity, since 61 societies reported that they do not have one. One secretary said members of his group objected strongly to such a practice, condemning it as "cheap advertising." Only 23 respondents have planned programs for the indoctrination of new members, and only 14 provide a sponsor to guide and counsel with new physicians.

Regarding work with other groups, 68 societies reported that no special opportunities are offered for medical assistants in their area, and 20 said that these workers are organized. In 13 societies, doctors counsel with the medical assistants' groups. Most societies cooperate with the Woman's Auxiliary "in any way possible," but only 46 indicated that the auxiliary is asked to take over specific projects and give special aid to the county medical society. Sixty societies work with allied groups in their associations, and in some other societies the doctors do this type of work individually.

One section of the questionnaire was on media relations, and 77 counties stated that news outlets in the community know that interpretation of medical news can be obtained through the county society. Cooperation from newsmen on touchy medical subjects can be expected in 66 of the areas responding to the questionnaire. The president and public relations chairmen in 85 societies know the editors and at least two newsmen in the area, but only 21 societies reported that they do anything to honor these men or show appreciation for them annually. Story suggestions for newspapers are provided by county societies in 53 areas, but only 39 respondents said that they know a television representative.

Programs

Scientific programs presented before county medical societies during the past few months include:

Big Bend Counties Society—"Orthopedic Problems," W. Compere Basom, El Paso.

Cameron-Willacy Counties Society—"Gastroenteritis," M. S. Grossman, Corpus Christi; "Hematuria," M. K. O'Heeron, Houston.

McLennan County Society—"Poisoning," Milton Spark, Waco; "Treatment of Cardiac Arrest" (film), Walter B. King and James Colgin, Waco; and "Ethics," including a film, "The Medical Witness," Philip R. Overton, Austin, General Counsel for the Texas Medical Association.

Potter County Society—"Control of Venereal Disease," Allen R. Doane, Austin, State Department of Health; "Accidental Poisoning in Children," David N. Cook, Poison Control Center, Denver.

Tarrant County Society—"Addiction to Meperidine (Demerol) Hydrochloride," Robert W. Rasor, Fort Worth.

McLennan County Doctors Hear Report on Indigents

At the June meeting of the *McLennan County Medical Society,* Mrs. Irene Bohanon, Waco, spoke regarding the admission and hospital care of indigent persons in the county. She explained that persons with an income of $35 per week or less are considered indigent, and that veterans, mental patients, and tuberculosis patients could not be accepted in the county hospital since other hospitals are available for them. Mrs. Bohanon also asked the doctors' help in working out nursing plans in cases of terminal cancer.

★ District Societies

FIFTH, SIXTH DISTRICT SOCIETIES

Dr. Franklin W. Yeager, Corpus Christi, was unanimously endorsed by the Fifth and Sixth Districts Medical Society as a nominee for the office of President-Elect of the Texas Medical Association in 1958. Dr. Yeager currently is chairman of the Board of Councilors.

The endorsement was made during the annual meeting of the Society in Corpus Christi July 5-6; 225 persons were registered. Another important resolution, also passed unanimously, dedicated the meeting to Mrs. Sam E. Thompson, Kerrville, wife of the late Dr. Thompson. Mrs. Thompson said, in part, "The underlying faith and hard work of you doctors to bring such master minds together in such education not only helps you; it gives untold service to the people you serve. After all, if everyone could remember service to others, as the doctors do, there would be no wars."

Attending the Fifth and Sixth Districts Medical Society meeting were Dr. Harold Griffin, Corpus Christi; Dr. Franklin W. Yeager, Corpus Christi, Councilor for the Fifth and Sixth Districts; Dr. Denton Kerr, Houston, President of the Texas Medical Association; Dr. J. E. Miller, Dallas, special guest speaker; Dr. James L. Barnard, Corpus Christi; Dr. James C. Sharp, Corpus Christi, outgoing president of the society; and Mrs. Sam E. Thompson, Kerrville.

Dr. Denton Kerr, Houston, President of the Texas Medical Association, was a special speaker at a breakfast held July 5. Other guests included Dr. G. A. Peters, Rochester,

Minn.; Dr. V. Medd Henington, New Orleans; Dr. Louis T. Byars, St. Louis; Dr. Leroy J. Kleinsasser, Dallas; Dr. Thomas W. Mattingly, Washington, D. C.; Dr. J. E. Miller, Dallas; Dr. Lamar Soutter, Boston; and Dr. Harry M. Spence, Dallas.

A few of the topics included in the scientific program were "Dangers of Irradiation," "Dermatological Conditions of the Hands and Feet," "Cysts and Cystic Disorders of the Kidney," "Six Years from High School to M. D.," "Arterial Injuries," "Changing Concepts in the Treatment of Carcinoma of the Lung," "Unusual Causes of Heart Failure," "Drug Allergies," and "Subtotal Gastric Resection for Peptic Ulcer."

There were 10 technical exhibits at the meeting. A luncheon and style show for the ladies was held at the country club, and an open house and dinner dance were high lights of the meeting.

Officers elected for the coming year are Dr. Foy Moody, president; Dr. W. E. Riley, vice-president; and Dr. Thelma Frank, secretary-treasurer, all of Corpus Christi.

★ American Medical Association

Blasingame Named AMA Manager

Dr. F. J. L. Blasingame of Wharton, president of the Texas Medical Association in 1954-1955, member of its Board of Trustees from 1947 to 1953, and member of the American Medical Association's Board of Trustees since 1949, has been named general manager of the AMA effective January 1. Dr. Blasingame will succeed Dr. George F. Lull, who will become assistant to the President, a new position. Dr. Lull has been secretary–general manager since 1946 after being retired as a major general from the Army Medical Corps; he will continue as secretary of the AMA, an elective office.

Born in 1907 in Arkansas, Dr. Blasingame came to Texas with his family 2 years later, spending most of his boyhood in Hempstead. He was graduated from the University of Texas in Austin and then, in 1932, from the University of Texas Medical Branch in Galveston, where he has taught anatomy almost continuously since graduation, now holding the title of lecturer. He interned at Henry Ford Hospital, Detroit. He has been in the private practice of general medicine and surgery in Wharton since 1937, being a senior member of the staff and part owner of the Rugeley and Blasingame Clinic and Hospital.

A member of the Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society, Eighth District Medical Society, Southern Medical Association, and United States Committee of the World Medical Association, as well as of the Texas and American Medical Associations, he is a fellow of the American College of Surgeons, president of the Blue Cross–Blue Shield plans of Texas, president of the Medical Research Foundation of Texas, chairman of the medical advisory board of the Sears Roebuck Foundation, and member of Phi Chi medical fraternity and Alpha Omega Alpha honorary medical fraternity. He was Councilor of the Eighth District from 1941 until his election as Trustee of the Texas Medical Association in 1947, and Trustee until his election as President-Elect in 1953. He became a delegate from Texas to the American Medical Association in 1944, and in 1949 (when one of the youngest physicians ever to be so honored) was elected to the AMA Board of Trustees, serving on its executive committee since 1953, heading its legislative committee for almost three years, representing the AMA at congressional hearings on numerous occasions, and being an AMA delegate to several World Medical Association assemblies.

Dr. Blasingame is chairman of the Wharton County Junior College board of trustees, a member of the Episcopal Church (and of the executive board of the Diocese of Texas), Masonic Order, and Shrine.

Dr. Blasingame and his wife, the former Miss Dorothy Rugeley, have five children.

TEXAN APPOINTED TO AMA COMMITTEE

Dr. Charles T. Stone, Galveston, has been appointed a member of the American Medical Association committee to study the report of Robert Heller & Associates, a firm which made a managerial study of the American Medical Association.

Guides on Voluntary Agencies

A new "Guides to Relationships Between Medical Societies and Voluntary Health Agencies" has been published by the American Medical Association. The booklet points out the nature of voluntary health agencies, the questions that need to be answered in evaluating such agencies, the medical society's obligations to voluntary agencies, and the voluntary agency's obligations to the medical society. Copies of this booklet may be obtained from the AMA's Council on Medical Service.

Dr. Ford Gets AMA Appointment

Dr. Hamilton Ford, Galveston, has been appointed to the American Medical Association's Council on Mental Health. He will fill the unexpired term of Dr. Francis J. Gerty, Chicago.

WOMAN'S AUXILIARY

Christmas Cards for AMEF

Peace on Earth
Good Health
Good Will to All

That is the message your Christmas cards will carry this year if you decide to use for your professional card the one the Woman's Auxiliary to the Texas Medical Association has had especially designed for doctors and their wives.

By buying your cards through the Auxiliary you not only will be choosing a greeting particularly appropriate for a physician, but you also will be helping the Auxiliary raise money for the American Medical Education Foundation.

A notation on the inside of the Christmas card explains: "This card was purchased from the Woman's Auxiliary to the Texas Medical Association to aid the American Medical Education Foundation. We hope you receive a lot like it."

The Christmas cards may be ordered in boxes of 25, and the price per box is $2.50. Cards are available now and may be ordered up to December 1 from Woman's Auxiliary to the Texas Medical Association, 1801 North Lamar Boulevard, Austin.

The Auxiliary also has available two other types of cards which you may have occasion to use.

When a death occurs, instead of flowers being sent, a donation in memory of the deceased may be made to the AMEF. When such a donation is made, a card of sympathy is mailed

Sale of this Christmas card by the Woman's Auxiliary to the Texas Medical Association will benefit the American Medical Education Foundation.

to the family saying that a gift has been made in memory of the one who has died, and giving the name of the donor.

There is also a card of appreciation which could solve the problem of how to express your gratitude to the colleague who has taken care of some member of your family. You can donate any amount you like to AMEF in his name and he will receive a card saying that you have made a donation "in appreciation."

However you use the cards, you will be helping the Auxiliary raise the ambitious sum of $20,000—which it is pledged to contribute to AMEF during the year 1957-1958. That is twice the goal set for last year.

Buy your Christmas cards from the Auxiliary, and donate to AMEF when you wish to express sympathy or appreciation. If you wish to make a gift to a particular medical school, this, too, can be done through AMEF.

With your help and support the Auxiliary will reach its goal of $20,000 for the American Medical Education Foundation.

—MRS. FREDERICK C. LOWRY, Austin.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

School of Instruction

County auxiliary presidents and presidents-elect attending the School of Instruction to be held by the Woman's Auxiliary to the Texas Medical Association at the Association headquarters in Austin on Wednesday, September 25, will profit from the new ideas and material available for their home auxiliaries. County auxiliary treasurers and committee chairmen are urged to attend this workshop, Mrs. W. Frank Armstrong, Fort Worth, school chairman, has announced.

Discussion groups will be informal and there will be time for morning coffee, a buffet luncheon, and an afternoon coke break. That evening the group will relax for dinner around the indoor pool at the Deck Club of the Commodore Perry Hotel. Those who wish may swim.

The Executive Board of the Auxiliary, which once again includes county presidents, will meet Thursday morning, September 26, at the Association building. Mrs. Horace S. Renshaw, Fort Worth, President, will preside.

RECENT DEATHS

DR. HENRY J. NELSON

Dr. Henry John Nelson, general practitioner of Pasadena, Texas, died July 19, 1957, of carcinoma of the pancreas.

Dr. Nelson was born April 18, 1898, in Council Bluffs, Iowa; his parents were C. P. and Eliza (Gates) Nelson. He was educated in the public schools of Granite, Okla., and spent 1 year in Oklahoma Agricultural and Mechanical College, Stillwater, before entering the University of Oklahoma, Norman, from which he was graduated in 1928. He received his doctor of medicine degree from the University of Oklahoma School of Medicine, Oklahoma City, in 1930, and returned to Granite to begin his medical practice. He received a fellowship to study at Vanderbilt University School of Medicine, Nashville, during 1938. In 1939, he moved to Mangum, where he practiced 2 years. Dr. Nelson moved in 1943 to Pasadena, where he was in active practice until the time of his death.

Dr. Nelson was a member of the Texas and American Medical Associations through the Harris County Medical Society; he also was a member of the South Main Baptist Church. He enjoyed travel and was especially interested in scenic areas of the United States.

Miss Verne Poschen and Dr. Nelson were married in Wichita Falls on July 31, 1943. She survives, as do three children by a former marriage, Henry John Nelson, Jr., Mangum; Mrs. Betty Savage, Hayward, Calif.; and Mrs. Artelee Grant, Houston; a sister, Mrs. C. R. Hollis, Warren, Okla.; and four brothers, George Nelson, Mountain Park, Okla.; Charles Nelson, California; and Arthur and Raymond Nelson, Granite.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

DR. WERNER F. A. HOEFLICH

Dr. Werner Franz Armand Hoeflich, Houston, Texas, died June 11, 1957, following complications after surgery some weeks earlier.

Dr. Hoeflich was born in Houston February 2, 1913, and was the son of Dr. Carl William and Dora (Werner) Hoeflich. His father died in March this year. Dr. Hoeflich attended St. Thomas High School and Rice Institute in Houston, and was graduated from Baylor University College of Medicine in 1938. He interned in Jefferson Davis Hospital, Houston, for two years and was in private practice there a year.

Dr. Hoeflich served five years in the Army Medical Corps during World War II. He was in Africa during the Tunisian Campaign, and served in Italy, Sicily, Southern France, and Germany, and was with the Second Auxiliary Surgical Group, and was anesthesiologist for orthopedic and chest teams. He was honorably discharged in 1946 with the rank of major. After his discharge, he entered residency training in anesthesiology at John Sealy Hospital, Galveston, for one year before returning to Houston. He was on the active staff of St. Joseph's Hospital, and the courtesy staffs of St. Luke's, Hermann, Memorial, and St. Elizabeth's Hospitals.

He was a member of the Texas and American Medical Associations through the Harris County Medical Society; he also

DR. WERNER F. A. HOEFLICH

was a former director for the southern area of the American Society of Anesthesiologists and a former secretary-treasurer of the Texas Society of Anesthesiologists. He was a member of the Houston Surgical Society, Houston and Galveston Societies of Anesthesiology, International Anesthesia Research Society, Catholic Physicians Guild, and St. Anne's Catholic Church. He was a diplomate of the American Board of Anesthesiology and was head of the Department of Anesthesiology at St. Joseph's Hospital.

Dr. Emilia F. Austin and Dr. Hoeflich were married in Dallas in 1939. She survives, as do four daughters, Mary Ellen, 17, Caroline, 18, Nancy, 8, and Marta, 7; two brothers, C. W. Hoeflich, Jr., New York, and Dr. Bert H. Hoeflich, Eugene, Ore.; a sister, Mrs. William H. Scott, Jr., Houston; and grandfather, Theo Werner, Seabrook.

DR. J. C. CHEATHAM

Dr. James Clifton Cheatham, Wolfe City, Texas, died in a Greenville hospital May 16, 1957, of a duodenal ulcer with acute obstruction.

He was born in Donnolds, S. C., on December 3, 1876; his parents were James Haynes and Mary Alice (Seaworth) Cheatham. After attending Clemson College, in Clemson College, S. C., he entered Barnes Medical College, St. Louis, and received a license to practice medicine in 1901. In 1908, he was graduated from Barnes Medical College, and interned in St. Louis. He practiced in Rosser, Texas, one year, then moved to Wolfe City where he remained 52 years until the time of his death.

In 1953, Dr. Cheatham was elected to honorary membership in the Texas Medical Association; he was a past president and honorary life member of the Hunt-Rockwall-Rains-Delta Counties Medical Society and a member of the American

DR. J. C. CHEATHAM

Medical Association. He also was a thirty-second degree Mason and a member of the Shrine, and held life membership in, and was commander for 17 years of, the Jernigan-Turner Post of the American Legion.

During the Spanish-American War, he served in Cuba as a lieutenant with the Army Medical Corps. He reentered the service during World War I, and was a captain stationed at Camp Travis, San Antonio.

On December 16, 1903, Miss Alice Burton Coulter and Dr. Cheatham were married in Aberfoyle. Survivors other than Mrs. Cheatham are two daughters, Mrs. R. C. Burnecke, Dallas, and Mrs. H. C. England, Tivoli.

DR. CHARLES H. OTKEN

Dr. Charles Henry Otken, Falfurrias, Texas, died April 16, 1957, of acute myocardial infarction.

He was born January 3, 1878, in Summit, Miss., and was the son of Charles Henry and Emily Jane (Lea) Otken. He attended Lea College in Summit and Louisville Medical College, Louisville, Ky., and was graduated from the Chicago

College of Medicine and Surgery, Chicago, in 1909. He interned at the Frances E. Willard Hospital, Chicago, and began his medical practice in Paige, Texas, in 1910. He remained there until 1925, with the exception of a period during World War I when he served as a captain in the Army Medical Corps in Fort Oglethorpe, Ga.; Camp Leach, Washington, D. C.; and Fort St. Philip, La. In 1926 he moved to Falfurrias, where he practiced until the time of his death.

He was a member of the Texas and American Medical Associations through the Brooks-Duval-Jim Wells Counties Medical Society; he also was a member of the Baptist Church, the American Legion, and the Masonic Lodge. He was Brooks County health officer for about 20 years, and was active in the promotion of municipal health activities.

Miss Ella Olga Marosko and Dr. Otken were married June 1, 1925, in Eagle Pass. Mrs. Otken survives, as do three sons,

DR. CHARLES H. OTKEN

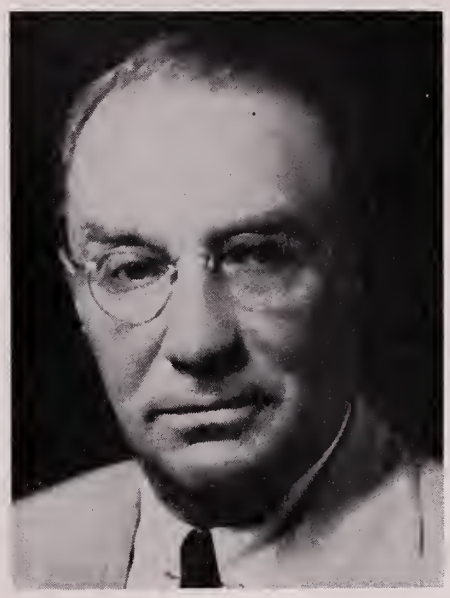
Henry L. Otken, Galveston; Charles C. Otken, McAllen; and Francis P. Otken, Kenosha, Wis.; one daughter, Miss Katherine Marie Otken, Houston; two brothers, Dr. L. B. Otken, Greenwood, Miss., and Lea Gidiere Otken, McComb, Miss.; and two sisters, Misses Lois and Frances Otken, McComb, Miss.

DR. M. W. SHERWOOD

Dr. Marcel Wesley Sherwood, Temple, Texas, died June 3, 1957, after a long illness.

Dr. Sherwood was born in Gainesville on June 12, 1882, and attended public schools there. He was graduated from New York University and from Bellevue Hospital Medical College in New York; in 1906 he began his internship at Bellevue Hospital, then spent one year as a ship's surgeon. He moved to Temple as surgeon for the Santa Fe Hospital, and became chief surgeon there in 1926. Dr. Sherwood became a director and co-owner of the Scott and White Hospital in 1918, and from the time of his retirement in 1950 until his death he was a governor of the Scott and White Memorial Hospital and Scott, Sherwood and Brindley Foundation.

He had been a member of the Texas and American Medical Associations for many years through the Bell County Medical Society, and was elected to honorary membership in the state group in 1952. He also had served as secretary of the Section on Surgery in 1918 and 1928; chairman in 1935; secretary of the Section on State Medicine and Public Hygiene in 1920; and secretary of his county society in 1928 and presi-



DR. M. W. SHERWOOD

dent in 1932. He was awarded a certificate of merit jointly with Drs. A. C. Scott, Sr., and G. V. Brindley for having one of the best scientific exhibits at the 1936 annual session of the Texas Medical Association. He also was one of the founders of the American Board of Surgery, a member of the Texas Surgical Society, and a fellow of the American College of Surgeons. He had traveled in Europe in 1931 and visited surgical clinics in Germany, Italy, Austria, and England.

He is survived by his wife, the former Miss Clarissa Holderman, Temple; a daughter, Mrs. Lon V. Porter, Houston; and two grandchildren.

DR. JOHN E. QUAY

Dr. John Edward Quay, Waco, Texas, died April 21, 1957, in San Antonio, following a cerebral hemorrhage.

Dr. Quay was born June 23, 1890, in Waco, and was the son of S. J. and Fannie (Mahon) Quay. He attended public schools in Waco and received his bachelor of arts degree from Baylor University there in 1912. He studied at Vanderbilt University School of Medicine, Nashville, and was graduated from the University of Pennsylvania School of Medicine, Philadelphia, in 1917. Dr. Quay's internship was in the Episcopal Hospital and Kensington Hospital for Women in Philadelphia, and he was assistant surgeon at Mayo Clinic, Rochester, Minn., for two years.

Dr. Quay was a veteran of World War I, during which he worked with Dr. Harvey Cushing in a neurological unit, and practiced medicine in Waco from 1921 until 1933, when he was recalled to active duty with the Army Medical Corps at Brooke Army Hospital. He retired in 1946 with the rank of colonel.

He was a member of the Texas and American Medical

DR. JOHN E. QUAY

Associations through the McLennan County Medical Society; he also was a member of the Texas Traumatic Surgical Society and the Association of Resident and Ex-Resident Physicians of Mayo Clinic, Waco Chamber of Commerce, Lions Club, and First Presbyterian Church.

He was married June 23, 1920, in Wetmore, Kan., to Miss Mary Isabella Thornburrow. Survivors include Mrs. Quay; two sons, Major John Edward Quay, Jr. and S. David Quay; a sister, Miss Mabel Quay; and three grandchildren, all of Waco.

DR. J. T. HUTCHINSON

Dr. James Thomas Hutchinson, Lubbock, Texas, died of nephrosclerosis and uremia June 22, 1957. He was elected to honorary membership in the Texas Medical Association in 1950.

Dr. Hutchinson was born September 13, 1880, in Annona, Texas, and was the son of Nelson Bailey and Vorena (Gause) Hutchinson. He received his medical degree at Tulane University School of Medicine, New Orleans, in 1909, and later took postgraduate work at Tulane; University of Pennsylvania School of Medicine, Philadelphia; and Harvard University Medical School, Boston. He practiced briefly in Clarksville and Madras before moving in 1909 to Lubbock, where he was in general practice 4 years before specializing in ophthalmology and otolaryngology. Dr. Hutchinson retired from practice in 1954.

He was a member of the Texas and American Medical Associations through the Lubbock-Crosby Counties Medical Society, and was president of the latter group in 1938. He also was a past president of the Third District Medical Society and an honorary member of the Texas Society of Ophthalmology and Otolaryngology, of the medical staff of Methodist Hospital, and of Rotary International. He was a thirty-second degree Mason, and had been active in his Masonic Lodge for more than 50 years. He served as chairman of the board of trustees of the Lubbock public schools for 33 years. Dr. Hutchinson's hobbies were birds and flowers.

In 1918, he served as a first lieutenant in the Army Medical Corps, and was stationed at Fort Oglethorpe, Ga.

Miss Ione Moseley and Dr. Hutchinson were married December 2, 1903, in English. Survivors include Mrs. Hutchinson, two sons, Dr. Ben B. Hutchinson and Tom Hutchinson, daughter, Mrs. Frank W. Hudgins, all of Lubbock; and three sisters, Mrs. Roma Shraf, Mrs. Vida Shoaf, and Mrs. Nola Fires, all of Quitman.

DR. G. E. BITTENBENDER

Dr. Glace Edward Bittenbender, Jackson, Miss., died of cancer April 15, 1957, in the Veterans Administration Hospital, Houston, Texas. He was a former associate professor of anesthesiology at Baylor University College of Medicine, Houston, and chose to return to Houston during his final illness.

DR. G. E. BITTENBENDER

Son of Mr. and Mrs. Edward Bittenbender, he was born March 2, 1912, in Nescopeck, Pa., and was graduated from public schools there. He received his bachelor of arts degree from New York University in 1940 and was graduated from New York University School of Medicine in 1943. He interned in Strong Memorial Hospital, Rochester, N. Y., and after taking time out to serve as a captain in the Army Medical Corps three years, he returned to Rochester for another year's work. He then completed one year of surgical residency at the University of Virginia Hospital, Charlottesville, and two years of anesthesiology residency at Charity Hospital, New Orleans, and became associate director of anesthesiology at Charity Hospital. In 1953, he moved to Houston where he taught, served as director of anesthesiology at the Veterans Administration Hospital there, as chief consultant in anesthesiology for St. Joseph's Hospital, and as attending anesthesiologist at the Texas Children's Hospital. In 1955, Dr. Bittenbender moved to Jackson, where he was professor of anesthesiology at the University of Mississippi Medical Center and director of anesthesiology at the new University Hospital.

He was a member of the Texas and American Medical Associations through the Harris County Medical Society during the time he was active in Texas, and when he moved to Mississippi he became a member of that state's medical association. He also was a member of the Society of University Anesthesiologists and Mississippi Society of Anesthesiologists, and was a diplomate of the American Board of Anesthesiology, a member of the board of governors of the American

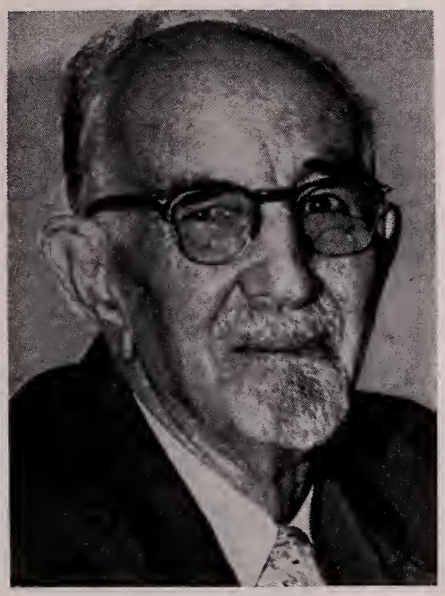
College of Anesthesiologists, recently resigned chairman of the Section on Anesthesiology of the Southern Medical Association, and an honorary member of the American Society of Anesthesiologists. He also was a member of the First Methodist Church of Nescopeck.

He is survived by his parents; a sister, Mrs. Dale Sitler; and two nephews, all of Nescopeck.

DR. J. O. WHARTON

Dr. James Osman Wharton, a general practitioner in McAllen, Texas, for more than 50 years, died May 27, 1957. He was a 1953 nominee for the Texas Medical Association's General Practitioner of the Year Award.

Born in Russellville, Ark., on October 15, 1879, Dr. Wharton was the son of a general practitioner. The family moved to Indian Territory, now near Duncan, Okla., when Dr. Wharton was 11 years old, and most of his preliminary education was obtained there. He then attended Memphis Hospital Medical College, Memphis, Tenn., for two years, and was graduated in 1906 from the Physio-Medical College of Texas, Dallas. His class was the last to graduate from that school. His first three years of medical practice were spent in Chickasha, Okla.; he returned to Duncan in 1910 to take over his father's practice. The following year, he served on



DR. J. O. WHARTON

the Oklahoma State Board of Medical Examiners, and from 1915 until 1918 was the city health officer. He helped to open the first hospital in Duncan, and served as secretary and president of the Stephen County Medical Society there. In 1922, Dr. Wharton took postgraduate work in pediatrics in Dallas, and moved in 1925 to McAllen, where he remained in active practice until the time of his death. He did much to lower the infant mortality rate in that area, which previously had been the highest in the nation. Both as city health officer and as consulting physician at the McAllen Child Clinic, a charity institution which he helped to found, he gave a great deal of his time to work with underprivileged children.

He was a member of the Texas and American Medical Associations through the Hidalgo-Starr Counties Medical Society, which he served as president in 1932. He also was a member of the Southern Medical Association and the American Academy of General Practice.

Survivors include Mrs. Wharton, McAllen; three daughters, Mrs. E. H. Duke and Miss Marianne Wharton, McAllen, and Miss Kathleen Wharton, Washington, D. C.; and four grandchildren, Wharton, Martha, Shannon, and Kathleen, all of McAllen.

DR. HORACE B. ROSS

Dr. Horace Benjamin Ross, pioneer general practitioner in Del Rio, Texas, died at his home June 10, 1957, of arteriosclerotic heart disease.

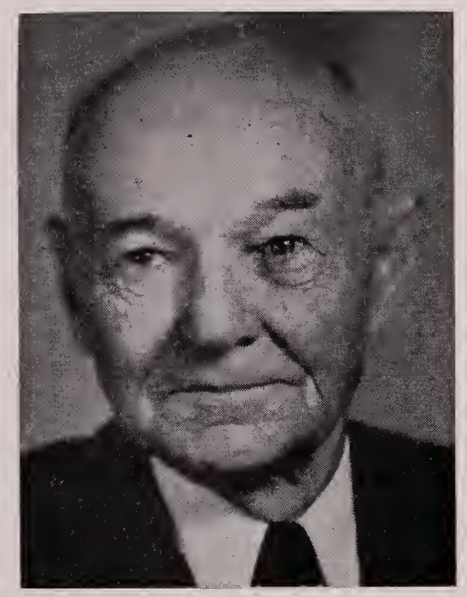
Born December 12, 1868, in Coffeeville, Miss., Dr. Ross was the son of Stephen M. and Zuliema B. Ross. After being graduated from Atlanta Medical College, Atlanta, Ga., in 1895, he began his practice in Del Rio, where he was active for 52 years before his retirement in 1948.

He was elected to honorary membership in the Texas Medical Association in 1945 after having been a member continuously since 1904 through the Nine Counties Medical Society. Dr. Ross was an organizer and charter member of this group, and held all the offices at various times. He also had served as city health officer for Del Rio and county health officer of Val Verde County. He was surgeon for the Southern Pacific Railroad, and from 1909 until he retired he was acting assistant surgeon of the United States Public Health Service. His duties included the examination of aliens entering the United States through the Del Rio port of entry.

A member of the Christian Church, Masonic Order, Rotary International, and Kiwanis Club, Dr. Ross also was active in civic drives such as for Red Cross. He was a staunch and active Democrat. He was a director of the Del Rio Wool and Mohair Company and had been a member of the board of directors of the First National Bank. Throughout the years he was interested in ranching and at one time raised fine Arabian horses. He also liked to fish and hunt.

Dr. Ross and Miss Dade Frances Wilkinson, Temple, were married April 28, 1903. She died January 2, 1933.

Survivors include a daughter, Mrs. Frances Ross Whyte, San Antonio; two sisters, Mrs. M. Z. Merrill, Long Beach,



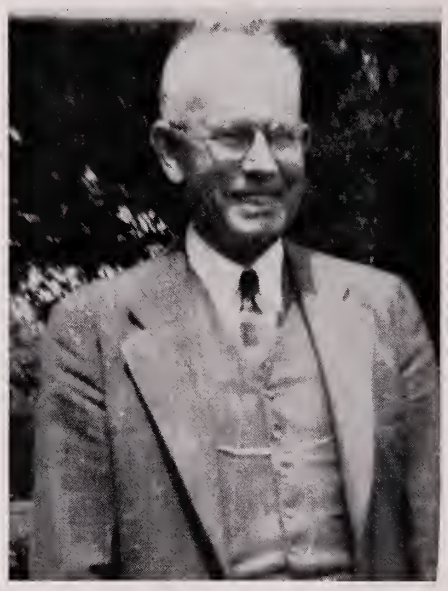
DR. HORACE B. ROSS

Calif.; and Mrs. Dave McLymont, Douglas, Ariz.; a brother, Ulric Ross, Del Rio; two grandsons, James Ross Sanders and Joe Lucien Sanders, Del Rio; and several nieces and nephews, including Dr. Rex R. Ross of San Antonio.

DR. WILLIAM CLAIBORNE BROWNE

Dr. William Claiborne Browne, Dallas, Texas, died at his home May 15, 1957, of a heart attack.

He was born January 15, 1874, near Gatesville, and was the son of Crockett M. and Margie (Key) Browne. The family moved to Brownwood a few years later, and Dr. Browne received his early education in the public school there. He joined the army at an early age in the hope that he would get to study medicine, and he was assigned to a cavalry regiment at Fort Bliss. Soon he became acquainted with the doctor in command of the army hospital, who ordered his medical books from Germany and tutored Dr.



DR. WILLIAM CLAIBORNE BROWNE

Browne in medicine. During the Spanish-American War, Dr. Browne was a noncommissioned officer in the medical corps, and was in command of an army hospital on the Texas-Mexico border where a skeleton force was maintained. Following his discharge, he finished courses in pharmacy and nursing, then entered the Fort Worth University Medical College, and was licensed to practice in Texas one year later. He also attended the University of Louisville College of Medicine, and was graduated from the University of Nashville Medical Department, Nashville, Tenn., in 1906. In 1911, he had studied at the Eye, Ear, Nose, and Throat Hospital, New Orleans, and in 1913 had done postgraduate work at Presbyterian and Cook County Hospitals, Chicago. Dr. Browne practiced a few years in Britton, then moved to Midlothian, where he remained until the outbreak of World War I. He was physician for the Santa Fe Railroad there. He volunteered his services, and was in France with some of the first American forces there; he held the rank of captain. He stayed in Paris after the war to take a postgraduate course, and when he returned to New York he took further postgraduate study at the New York Postgraduate Hospital. In 1920, Dr. Browne moved to Dallas, where he practiced until his retirement about three years ago.

He was a member of the Dallas County Medical Society, American Medical Association, and Texas Medical Association, to which he was elected to honorary membership in 1948. He was on the staff of the Parkland Memorial Hospital in Dallas, and was a member of the Christian Church.

He was married in Midlothian December 21, 1905, to Dell Evelyn Lawrence; she preceded him in death April 29, 1951.

Survivors include a daughter, Mrs. Mike O'Daniels, Honolulu, Hawaii, and a sister, Mrs. J. D. Caldwell, Dallas.

DR. J. R. WAGNER

Dr. Joseph Ralph Wagner, pioneer physician of Palacios, Texas, died of cerebral thrombosis May 28, 1957, in a local hospital.

Dr. Wagner was born May 16, 1870, in Newman, Ill.; his parents were Dr. John Marquand and Sarah Ellen Wagner. He was educated in public schools in Newman, then attended a small college in Bloomington, Ill. He was graduated from Rush Medical College, Chicago, in 1895 and began practicing in Newman, but moved in 1906 to Palacios, where he practiced until his retirement in 1952.

Dr. Wagner was a member of the Texas and American Medical Associations through the Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society, which he served as president in 1935. He also was city health officer of Palacios for 39 years, and had been a Mason for 67 years, becoming one at the age of 20 by special dispensation. He was a charter member of the Palacios Rotary Club, a member of the Presbyterian Church, and a former member of the local school board.

DR. J. R. WAGNER

The former Miss Minnie Isabell Shaw, Dr. Wagner's first wife, died in 1911. His second wife, the former Mrs. Emylee Bonner, whom he married in 1918, survives. Other survivors are two daughters, Mrs. Carl Nelson, McAllen, and Mrs. Roy Bell, Houston; a son, John T. Wagner, San Francisco; a stepdaughter, Mrs. Timothy C. Williams, Washington, D. C.; a stepson, John H. Bonner, Houston; three sisters, Mrs. Henly Eversole, Phoenix; Mrs. C. F. Voyles, Indianapolis; and Mrs. O. M. Sherman, Kansas City; and one brother, John Dwight Wagner, Chicago.

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

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Worker or Drone—Which Are You?

I have heard it said that if a preacher can't keep a man from going to hell in 15 minutes, the rest of his time is wasted. Therefore, I will make this editorial short and to the point.

In every medical society, you often hear the words, "This society is run by a clique." That clique is the easiest one to join I know. All you have to do is to be willing to do a little work. The greatest condemnation I know of Texas medicine is the fact that about 50 per cent of our doctors attend few if any of the regular meetings of their county medical societies. An individual doesn't have to be the president or secretary to be a worker and valuable member of organized medicine. A doctor who will attend his county society meetings and give serious thought to and suggest ideas on the problems that confront us in the advancement and protection of American medicine as we know it is making a valuable contribution.

It is a sad but true fact that a majority of the men who fail to attend their county society meetings are faithful in their attendance at their hospital staff meetings for the simple reason that they will be put off the staff if their attendance falls below a certain percentage. That is how, eventually, the hospitals will take over the practice of medicine unless the trend changes.

American medicine will stand or fall in accordance with the strength we put into our county medical societies. The men who complain the most are those who are sluggards

when it comes to working on medical problems. You will never hear a worker say, "What is Organized Medicine doing for me?"

Now go back to the title and grade yourself. Which are you, a worker or a drone? What are you going to do about it?

—F. W. YEAGER, M.D., Corpus Christi.

For Asian Influenza: Mobilize NOW

If the public reaction to the threatened Asian influenza epidemic is to be an orderly procession to private physicians for immunizations, doctors must begin now to prepare for this demand. There will be a great clamor for inoculations; as always, there will be the cry, "It ought to be free!"

Now is the time to make statements through the local press and radio about how people in your area may obtain vaccine, and at what cost. Doctors should discuss and study this question at county society meetings, come to an agreement, and make public their plans. Explain that the vaccine costs money, that giving injections takes precious time, but that the doctors are willing to perform this service for a reasonable fee. Of course, doctors probably will want to continue existing practices of providing inoculations free for the truly indigent. Such action, if taken before the public panics at the word "epidemic," will result in better understanding and better patient care.

The President of the Texas Medical Association, Dr. Denton Kerr, Houston, in a statement to the press September 7 said that steps are being taken to assure Texans of the best possible care in the event of an Asian influenza epidemic. He emphasized that about twelve and a half million doses of vaccine are expected by December 1. In his statement, Dr. Kerr said that because of the limited vaccine supply, first preference should be given to persons whose services are imperative for the care of the sick and for maintenance of essential community and governmental services.

A resolution, introduced by the Board of Councilors and adopted by the Executive Council of the Association at its meeting September 8, stated that since there was considerable agitation for mass vaccination against Asian influenza and that a continuation of this movement without direction from the Association might result in confusion similar to that resulting from the poliomyelitis vaccination program, influenza vaccine should be administered in accordance with the established doctor-pharmacist relationship. It was further resolved that no patient be denied this or any other medical care because of economic distress, and that a committee be appointed to study the problem and offer direction in its solution.

This step is a starting point for the medical profession to work from. If good planning and coordination are begun at the outset of the epidemic, it will avoid some of the problems and rhubarbs that developed with poliomyelitis vaccinations.

About the disease itself—the virus belongs to the A group, but persons who have been infected previously with group A or A_1 virus have no immunity against the Asian strain. Although there is the distinct possibility that this new virus may cause a vicious epidemic with lethal qualities comparable to the terrible 1918-1919 pandemic influenza, the probabilities of anything with such killing power are lessened by the current use of antibiotics. There have been to date approximately 20,000 to 25,000 cases of influenza caused by the Asian strain in this country; it is highly contagious and conceivably could spread across the country in 4 or 5 weeks with a mortality rate of 2 per 1,000 and an attack rate of 10 to 20 per cent. Fever, body aches, sniffles, and cough are usual symptoms.

About the vaccine—an August 30 issue of the *American Medical Association Washington Letter* reports that the vaccine will be allocated to states under a voluntary system according to population (a September 6 release states that Texas is in line for 5.2 per cent of all vaccine

produced). It is packaged in 10 cc. vials (10 immunizations) and is a killed vaccine preserved in 1:10,000 sodium ethylmercury thiosalicylate. It should be refrigerated and will retain potency for about 18 months. The vaccine is prepared from the allantoic fluid of chick embryos infected with the virus; for this reason, persons allergic to eggs, chicken, or chicken feathers may have unfavorable reactions. About 10 days to 2 weeks is required to develop immunity after having had the vaccine, and the length of immunity is not known. The vaccine is about 70 per cent effective.

Already the lay press, as well as medical publications, are drawing conclusions and commenting editorially about the Asian influenza and the part the medical profession will play in its control. *The Texas Businessman* in its August 19 issue said, "Flu epidemics will mean an excited, emergency-like public attitude. Critics of the medical profession should have a field day, with public opinion tilted a bit in their favor." *Life* magazine had a nine page spread on the subject covering the mobilization of drug companies in manufacturing vaccine, the effects of the disease in eight foreign countries, the process of making vaccine (in this section it was mentioned that list price for the vaccine is 66 cents per dose), facts about the flu, and picture studies of the first effects of the disease on the nation.

The *AMA Washington Letter* has reported that President Eisenhower is asking half a million dollars for use by the Public Health Service to combat Asian influenza, and that if a critical emergency develops, the Department of Health, Education, and Welfare would be authorized to draw from other appropriations $2 million to call back 100 reserve health officers and to provide supplies. The White House spokesman said that the federal government itself does not propose to buy vaccine.

Dr. Henry A. Holle, State Health Commissioner, Austin, has issued the following comment:

> We are somewhat fortunate in being ahead of a possible outbreak of the disease. Representative groups have been called and are working together to try to minimize the impact of the epidemic. The American Medical Association is joining the Public Health Service in an educational program for the vaccine and in preparing for medical care that will be necessary following the illness. They are giving complete support to the program. The American Hospital Association has already advised all their members to make plans for a probable outbreak. Obviously, with such large numbers of people affected, only those with complications should be admitted to hospitals and routine cases will of necessity have to be cared for at home. The American Academy of Pediatrics and the American Academy of General Practice have actively cooperated in the program. All the voluntary associations such as the American Red Cross, National Tuberculosis Association, and others are lending full cooperation to the program. Through cooperative efforts, we hope to at least minimize the occurrence of the disease.

Like organized groups at the state and national level, medical societies at the county level will want to make careful plans and begin wholehearted cooperation with other local groups so that if an epidemic does strike, the public will get the best possible care with the least possible cost and confusion.

Something Missing?

The fact that the transactions and membership list of the Woman's Auxiliary to the Texas Medical Association have been missing from the *Journal* this year is no indication that the Auxiliary is less active than usual. This material, because of its special significance to the 5,162 members of the Auxiliary, has been issued as a separate booklet for direct distribution to them. The booklet details the splendid projects in health education, community service, and good relations for the medical profession carried on during the year 1956-1957 by the Texas Auxiliary and contains the names and addresses of current members. Interested physicians may obtain the booklet upon request.

As the publication reporting past activities

is distributed, the Auxiliary is at work on this year's program. Officers and committee chairmen of the state group plus presidents of the 115 county units are getting together for an intensive workshop session and Executive Board meeting in Austin September 25-26 as the fall and winter season—traditionally the season of best organizational work—gets under way.

"Never underestimate the power of a woman" has become a byword. Nevertheless, there is much truth in its application to the women who make up the medical auxiliaries, and this power has been applied successfully to the advantage of the medical profession. Every doctor should acquaint himself with this aspect of the professional organizational picture.

Wanted: New AMA Members

Wanted: 309 Texas physicians—to join the American Medical Association.

For a perfect membership record, Texas should have approximately 500 new AMA members to add to the 6,691 present Texas membership in AMA. But 309 additional AMA members from Texas would be significant, for they would give the Texas Medical Association added strength on the national level in the form of an eighth delegate to the House of Delegates of the American Medical Association. It is anticipated that normal growth should bring in approximately half this many new members by the first of the year, which leaves a very narrow margin between Texas' present seven delegates and its possible eight delegates.

Texas physicians exert a big influence in helping to work out the problems and to set the policies of medicine on a national scale. A fellow Texan, Dr. F. J. L. Blasingame, soon will become the chief executive officer of the AMA, and it will be a privilege to every Texas doctor to cooperate to the fullest degree with him as he leads all physicians in solving their problems.

The Texas delegates and alternate delegates to the national medical organization are in the midst of a membership campaign, aimed at increasing the number of Texans in the AMA to at least 7,000, which is the dividing line for Texas' increased representation. The national President, Dr. David B. Allman of Atlantic City, has written each member of the Texas Medical Association who is not a member of the AMA but is eligible for active membership, pointing out that AMA members constitute 90 per cent of the practicing physicians in the country and that the organization serves as the official representative of the medical profession. The advantages of belonging to the Association being too numerous to do more than mention, Dr. Allman enclosed a brochure briefly summarizing the AMA in action, and a reprint of "Things of Good Report," an article by Dr. Blasingame which appears in the August, 1957, issue of the *Texas State Journal of Medicine,* also was sent to them.

Dr. Milford O. Rouse of Dallas, immediate past President of the Texas Medical Association and chairman of the Texas delegation to the AMA, and other delegates and alternates are personally encouraging nonmembers, by letter and by telephone, to join the ranks and to fulfill their responsibilities to the profession, the public, and better health.

The relatively few Texas nonmembers of the American Medical Association should consider the many great advantages of belonging—for example, the scientific contributions; the postgraduate educational efforts, primarily a clinical meeting and the biggest annual medical meeting on earth; the numerous publications, including the weekly *JAMA* and nine monthly specialty journals—and join the AMA now by sending a check to the secretary of their local county medical society. In addition, they owe it to themselves, their patients, and their profession to carry their part of the load in supporting the organization which has done so much to keep the standards of medical care high and to preserve the time proven methods of medical practice.

President's Page

WORDS BETTER LEFT UNSPOKEN

A careless statement to a patient by a well meaning physician resulted in an enormous suit being filed against a fellow physician. The defendant happened to be a partner in a large, successful group, and so was the person who made the careless statement. The plaintiff won the suit. The economic status as well as the reputation of the entire group was virtually ruined. A series of lawsuits followed in that state, and within 2 years the protective insurance rates more than doubled. Today, and for years to come, every physician in that state must continue to pay for one man's carelessness. One or two simple questions and a little better understanding of the facts in the case might have prevented this unfortunate chain of events.

A few days ago I heard a good friend of mine bitterly denouncing Blue Shield for not paying his entire bill in a Medicare case. He was arousing his audience and getting many of his listeners to agree with him. After he had had his say, it was explained to him that Blue Shield accepted the responsibility of handling Medicare as a favor to the physicians of Texas and then only after the House of Delegates in special session unanimously requested Blue Shield to do so. It was further explained that the fees were set in Washington and Blue Shield is forced by law to abide by them or suffer the consequences. No group of people can be more dedicated to the task of helping sick people and physicians than the employees of Blue Shield. No group has done more to help maintain the private practice of medicine than they. Yet, the staunch friends of Texas medicine and the free enterprise system were being maligned by a person for whom they have been diligently working for years. A short letter of inquiry would have resulted in a courteous explanation of the situation.

Within the past week, I heard a fellow physician attack the Texas Medical Association for trying to dictate to him the kind of insurance he should carry. The truth is that for many years letters poured into

the office of our Association from its members requesting that a policy or a company be recommended because the writers were being constantly worried by insurance salesmen from various companies, each claiming that his company and his policy were the best. Finally a committee of our best talent was asked to study the policies of every leading company in America and make such recommendations as they believed would be in the best interest of the doctors of Texas. Hundreds of man hours were spent getting the facts and figures together. Finally, a half dozen of the best policies of the leading companies were tabulated in detail and submitted to the Board of Trustees for a final selection. After many long hours of study the Board selected the one which it thought would best serve the physicians of Texas. It was merely recommended to the membership for their acceptance or rejection. No one was told that he must buy it. In spite of all that had been done, the entire Texas Medical Association was being denounced for its "autocratic methods."

No recommendation ever came from the state, district, or county level without a thorough study and appraisal by the appropriate committee. These unselfish committeemen work long hours, forego personal pleasure, and spend hard earned money in a never ending effort to make ours the best medical organization in the world. They welcome constructive criticism because they realize that it is the greatest asset to a democratic society. Deserved praise is the greatest stimulus that can be given to the many unselfish workers who are constantly fighting our many battles. May we all be more generous with both and in every instance do our utmost to be thoroughly familiar with the subject about which we speak.

Denton Kerr

ORIGINAL ARTICLES

Is Radium Still Needed in Cancer Therapy?

CHARLES L. MARTIN, M.D.

Dallas, Texas

DURING the past decade much of the activity in the field of therapeutic radiology has been directed towards building bigger, more powerful generators of radiant energy and towards devising substitutes for radium. The enthusiasm of the technical experts has become so great that some of them have come forth with the statement that radium is no longer needed.

Dr. Charles L. Martin, director of the Martin X-Ray and Radium Clinic, presented this paper for the Section on Radiology of the Texas Medical Association at the annual session April 30, 1957, in Dallas.

Although radioactive isotopes are popular, low intensity radium sources still constitute perhaps the best form of therapy for accessible neoplasms. Illustrative cases and statistical studies from the author's experience, a comparison of results obtained with radium needles and radioactive cobalt needles, and the advantages and disadvantages of other types of interstitial therapy are presented.

The evaluation of new devices must rest squarely on studies of clinical results, and such studies are now appearing in the medical literature. Let us first examine some of the information which has been provided concerning the clinical value of the new expensive sources of external irradiation such as the cobalt bomb, the supervoltage x-ray machine, and the betatron. These machines provide irradiation beams having wave lengths similar to those produced by well filtered radium. They can be projected into the body so as to produce little or no skin reaction, but the treatment of an internal neoplasm necessitates the irradiation of a volume of tissue considerably larger than the tumor to be treated and usually such volumes have spherical, cylindrical, or ovoid shapes. This fact constitutes the chief disadvantage of the method because many of the normal tissues which must of necessity be included in such volume patterns will not tolerate the doses needed for the complete eradication of a neoplasm.

It has been known for many years that a dose of 6,000 to 7,000 gamma roentgens administered in seven or eight days with multiple low intensity radium sources will control most squamous cell carcinomas and some adenocarcinomas. However, it was soon found that a similar procedure carried out in such a short period of time with the new machines was disastrous to the normal structures when adequate volumes of tissue were treated. An attempt was then made to do away with such adverse complications by extending the time of treatment to three or four weeks and then to six or seven weeks. Although this procedure reduced the number of sequelae, it must be remembered that the biological effect of 6,000 r given in six weeks is less than the effect of the same dose given in one week and it may fall completely below the cancerocidal level. Even if this technique were effective, Fletcher[4] has shown that it may be dangerous when applied to the whole pelvis so as to deliver 6,000 r at the pelvic walls using rotation therapy because it produces "small intestinal diarrheas, at times bloody." He advocated doses of 4,500 to 5,000 r but did not state that they are cancerocidal. In an attempt to give cancerocidal doses to the whole pelvis he administered 7,000 r in seven weeks and 8,000 r in eight weeks to patients with advanced cancer of the cervix, but as might be expected these patients died with small bowel necroses. His conclusions indicated that radium still constitutes an important part of his cervix techniques.

Williams and Horwitz[19] recently have reported a series of patients with cancer of the rectum in which an attempt was made to deliver a dose of 6,000 r to rather large volumes of tissue in six weeks with 1,000 kilovolt equipment. In 50 per cent of these cases it was necessary to modify or interrupt the treatment because of bladder and bowel irritations, malaise, nausea, and vomiting. In some of the others, late complications such as rectovaginal fistulas, chronic radiation necrosis, and fibrosis and stenosis of the rectum were observed.

Friedman[6] has made a rather intensive study of the effects of supervoltage roentgen rays on internal organs. He found, for instance, that in irradiating the upper left abdominal quadrant for periods varying from 50 to 75 days, the stomach received serious damage in 25 per cent of the cases receiving 3,500 to 4,400 r and 50 per cent of the cases receiving from 4,500 to 5,500 r. He also reported a serious radiation nephritis in cases receiving 2,300 r to both kidneys. As a part of his discussion in a recent symposium[3] on supervoltage therapy, he stated, "we are now hearing that many people . . . in spite of the knowl-

Fig. 1. Large squamous cell carcinomas of the lateral border of the tongue and the hard palate before and six weeks after the implantation of low intensity radium needles. Note the perfect healing of the mucous membrane of the hard palate where radium needles were used in contact with bone.

edge of our experience are beginning to encounter these radiation injuries of the gastrointestinal tract not only here but also in England."

The physicists have stated that bone absorbs a relatively small quantity of the rays generated in the supervoltage range and that this fact should make it possible to treat carcinomas in the mouth without the production of bone damage. However, clinical observation does not seem to support this supposition. Friedman stated that "my experience has been that there has been no decrease in the incidence of bone necrosis with supervoltage radiation," and Watson said, "I have little to add except to support Dr. Friedman in his statement about bone necrosis." Friedman and his associates, who use the cobalt 60 bomb, stated, "with a total dose of 7,000 r improvement was obtained, but the tumor persisted when the involvement was in the anterior two-thirds of the tongue." Since cancer of the tongue can be treated successfully without bone damage using point doses ranging from 6,000 to 12,000 r administered with low intensity radium needles, supervoltage techniques apparently are relatively inefficient in this field.

Radiologists have known for many years that large doses of radiation produce marked fibrosis of lung tissue and that this type of fibrosis can completely abolish function. This complication has been observed in patients treated with supervoltage equipment for carcinoma of the esophagus, bronchogenic and breast carcinoma, and mediastinal lymph nodes, and Ivan H. Smith in discussing a paper by Burkell and Watson[1] on cobalt bomb therapy stated, "I am disturbed, yes, harassed, by the incapacitation occasionally produced by pulmonary fibrosis."

The experienced radiologist who is familiar with the risks involved can treat lesions within the body with supervoltage equipment by reducing the volume irradiated, extending the time of treatment, and reducing the total dose so as to avoid irreparable damage to normal tissues. However, it is important to determine whether the clinical end results obtained under these conditions show significant improvement over those obtained with radium and conventional x-ray machines.

Carpender,[2] who has all of the newer types of supervoltage equipment at his disposal in the Chicago Tumor Institute, has said, "It will by no means supplant 250 Kv. therapy or radium, but should evolve another tool of limited usefulness in the hands of the careful practitioner of radiotherapy." Advocates of the newer methods have held out great hope for the successful treatment of cancer of the bladder. Watson,[17] who has had all types of equipment available in his clinic in Saskatchewan, Canada, reported that 3 patients treated with external radiation have obtained good results but said, "Unfortunately, this is not true of the majority of cases of cancer of the bladder thus treated by us" and later, "In regard to the question of survival, I imagine that the survival rate would be very little improved by supervoltage therapy." Friedman has taken a more positive stand when, in discussing the treatment of cancer of the bladder, he said, "Among an equal number of cases receiving 2,000,000 volt therapy and intracavitary radium or cobalt the results with intracavitary radium are superior."

When asked whether certain lesions should show a better response to supervoltage therapy, Friedman replied, "It is my clinical impression that the quality of radiation delivered by 200 Kv. is much closer to

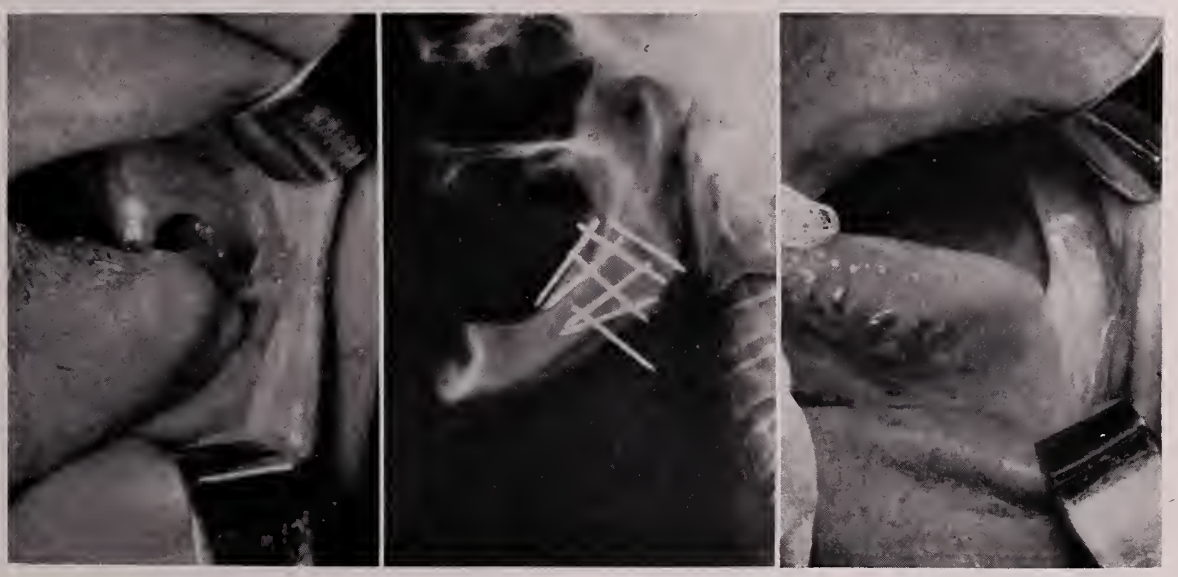

Fig. 2. Squamous cell carcinoma of the left base of the tongue and anterior pillar before and three months after the implantation of two layers of low intensity radium needles.

the optimum efficient relative biological effect than supervoltage radiation." Later he said, "In my own experience, there is no improvement in the results in carcinoma of the larynx with the use of supervoltage radiation." Constance Wood (quoted by Way[18]) summed up the situation very well when she said, "The dream of the radiotherapist in former decades of obtaining an x-ray beam which would deliver a high dose to a deep seated tumor without damaging the skin has now been achieved. With this, however, has come the realization that improved technique will not materially increase the cure rate of cancer."

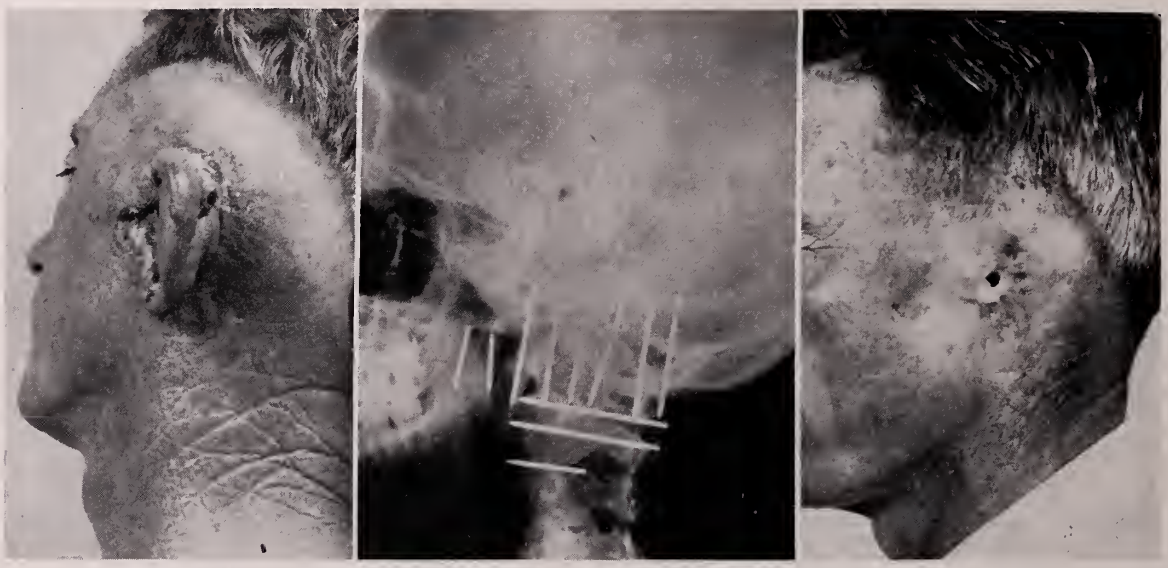

Fig. 3. Advanced squamous cell carcinoma of the left ear before and nine months after the removal of the cartilagenaus portian of the ear and the implantatian af a layer of low intensity radium needles inta the residual malignant tissue. The patient has remained well far eight years.

INTERSTITIAL THERAPY

It is my opinion, based on some 25 years' experience, that the implantation of low intensity radium sources provides the most efficient and the safest radiological method available for the treatment of accessible neoplasms. Since this technique was first used in France by Regaud in 1920 it can hardly be looked upon as new, but it has not been generally adopted in this country. Instead, most interstitial therapy has been carried out with radon seeds, which were perfected by Failla in 1926. An article was published by me[7] in 1932 detailing the advantages of low intensity radium needles over radon seeds. Chief among them is the more even distribution obtainable with longer implants which can usually be placed accurately in a preconceived pattern. When roentgenograms show an uneven distribution, the needles can easily be readjusted, but once seeds are implanted their positions are fixed and an irregular distribution cannot be corrected. The relatively thin filters used with seeds (0.3 mm. wall thickness) allow the emission of some beta rays, which may produce undesirable normal tissue damage particularly in bone. Another undesirable feature is the permanent retention of the seeds in the implanted area and on occasions they have been known to work out of intraoral tissues and be aspirated. Some have contended that the rapidly decreasing intensity of radon (half life 3.8 days) is a disadvantage because the cells do not receive the constant intensity of radiation obtained with radium.

More recently, small fragments of radioactive gold 198 encased in thin shells of inactive gold have been recommended for interstitial therapy. Since radioactive gold 198 has a half life of only 2.7 days and since the fragments are left in the tissues permanently, it is evident that they have most of the disadvantages listed for radon seeds. Some have advocated the injection of radioactive colloidal gold directly into malignant tumors and the surrounding structures. This substance is a liquid which gives off some gamma rays, but most of its output consists of beta rays, which produce severe reactions and are absorbed by a few millimeters of tissue. It has been used with some success in cancer of the prostate and parametrial extensions from cancer of the cervix. However, its chief disadvantage seems to lie in the inability of the operator to obtain a uniform distribution of the injected material, particularly when the tumor tissue is hard. It was thought, at first, that the material would be taken up by the lymphatics

and deposited in the lymph nodes in quantities sufficient to destroy metastatic deposits. However, experience has shown that metastatic carcinoma does not take up colloidal gold, and for this reason the method has been disappointing. The injections have also produced some troublesome sequelae such as rectal ulcerations and painful sciatica resulting from deposits of the radioactive material placed near the large nerve trunks in the pelvis.

Small rods of radioactive cobalt 60 encased in hyperchrome steel needles having a wall thickness of 0.23 mm. can be substituted for radium needles. The beta rays are filtered out by the steel shell, and the gamma ray output is similar to that of radium. However, the half life of cobalt 60 is 5.3 years and dosage calculations are constantly changing. I have produced good clinical results with these needles, but since the treatment time steadily increases, one is soon inconvenienced by the necessity of removing them in the middle of the night if proper dosages are to be obtained. Small fragments of cobalt 60 encased in pliable hollow nylon threads have proven useful in the implantation of carcinomas growing on curved surfaces such as the bladder wall. However, the nylon rapidly becomes brittle and is easily broken after it has been used a few times. It is extremely difficult to remove a tiny fragment of radioactive cobalt left in a bladder tumor when a thread is broken, and such mishaps constitute a serious disadvantage unless new threads can be made up for each implantation.

The half life of radium is 1,690 years, and the intensity of its energy output changes so little in one person's lifetime that it can be assumed to be constant. It is, therefore, possible to duplicate good results with ease when satisfactory techniques have been established, and radium needles still seem to provide the best medium available for interstitial therapy.

CLINICAL RESULTS

In selecting the best plan of treatment for a given neoplasm one should always utilize that technique which produces the greatest number of five year survivals with the smallest number of sequelae. The advocates of supervoltage equipment stress the mild skin reactions and the minimal radiation sickness produced as important advantages. However, low intensity radium implants placed inside the body produce no skin reactions and very little radiation sickness.

They are used to the greatest advantage in carcinoma of the skin, lip, tongue, alveolus, floor of the mouth, cheek, tonsil, oropharynx, metastatic cervical nodes, and uterus. However, they can be used with

Fig. 4. Massive node metastases in the right side of the neck secondary to a carcinoma of the tonsil. The primary lesion was implanted with low intensity radium needles and the cervical lesion received roentgen-ray therapy plus a radium needle implant. The scarred area in the neck shown in the central photograph was removed at three months and revealed no evidence of cancer. The photograph on the right shows the appearance of the neck at the end of six years when the patient was symptom free.

some success in cancer of the bladder, breast, prostate, and any other such lesion which can be properly implanted. Low intensity radium techniques have been described in previous articles,[8, 10] and they will not be described here. Suffice it to say that success depends on a painstaking approximation of the radioactive sources to all of the malignant tissue using patterns designed to eradicate all malignant cells and protect normal tissues.

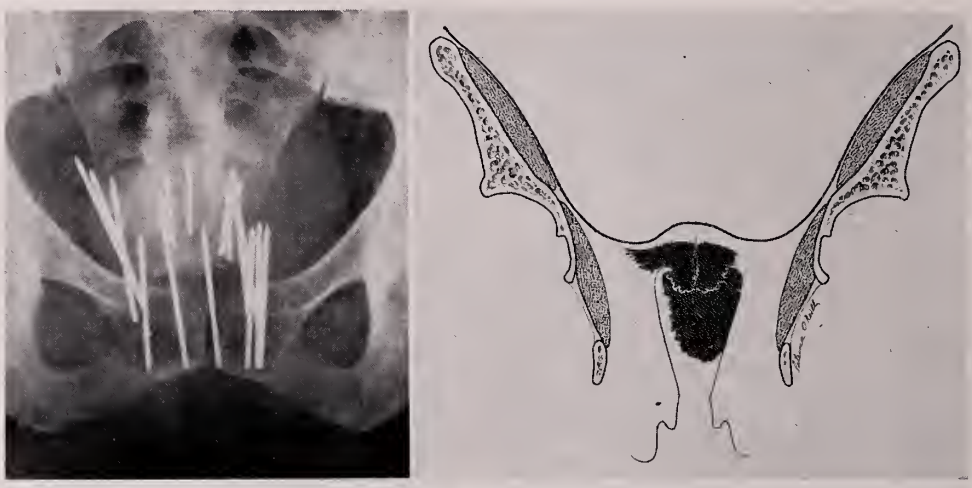

Fig. 5. Carcinoma of the cervical stump with extension into the right parametrium and posterior vaginal wall treated with low intensity radium needle implantation, as shown in the radiograph. The patient has remained well for six and one-half years.

If the newer methods are to replace radium therapy, they must produce better results and it may be worth while to list a few clinical studies from our clinic as a baseline for comparison.

In 1948, a series of 57 cases of advanced cancer of the ear treated by implantation of a layer of low intensity radium needles into the residual tumor, after the involved cartilage had been removed by electrosurgery, was reviewed. The lesions were said to be advanced when they involved the entire ear, when invasion was observed in the auditory canal or the surrounding structures, or when metastatic lymph nodes could be felt in the cervical region. The involved nodes were treated entirely by an irradiation technique which will be described later. The survey showed that only 9 patients were known to have died of cancer; complete primary healing was observed in 63 per cent while 51.4 per cent had remained well for periods varying from three to seven years.

Cancer of the oral cavity is particularly well suited for radium needle therapy, and a survey[10] of 171 consecutive cases involving the cheek, tongue, alveolus, floor of the mouth, and soft and hard palate treated from 1930 to 1944 was published in 1949. Complete primary healing was observed in 63.7 per cent, and a five year cure rate of 40 per cent was obtained. Cancer of the tongue is the most serious of the intraoral malignant tumors. A review[12] of 94 consecutive unselected cases reported in 1954 showed a five year cure rate of 32.0 per cent, and a more recent study of 120 cases raised the cure rate to 33 per cent, which compares favorably with results reported by other clinics. Involvement of the posterior third of the tongue with extension to the anterior pillar is supposed to carry a very poor prognosis. However, a recent study[16] of 40 such cases revealed a five year cure rate of 38 per cent. It should be noted that the cervical node metastases observed in this series were treated exclusively with irradiation therapy.

Cancer of the gums constitutes one of the most controversial problems, and its treatment is important because it complicates so many of the tumors originating in the tongue, cheek, and floor of the mouth. Practically all of the well known authorities have stated that interstitial therapy cannot be used in the gums because of the danger of bone necrosis. However, our experience has convinced us that heavily filtered low intensity radium needles provide one of the best available methods for the treatment of such lesions. The technique is rather difficult and requires quite a bit of patience, but the results which usually render a radical jaw resection unnecessary compensate for all of the difficulties encountered. In 1952 we published a survey[14] of 87 cases, 70 of which had been followed for five or more years. Complete healing of the lesion was observed in 72.4 per cent, and a five year cure rate of 40 per cent was obtained.

Most surgeons believe that a block dissection offers the only chance of a cure of metastatic cervical lymph nodes secondary to squamous cell carcinoma, and yet the average cure rate obtained in good surgical clinics with this method in operable cases amounts to about 25 per cent. In 1935 we adopted a rather intensive

technique consisting of the implantation of one or more layers of low intensity radium needles combined with conventional 220 kilovolt x-ray therapy. This technique was based on the belief that the dose of irradiation needed to cure cancer growing in lymph nodes is much larger than that needed for the primary lesion and on the observation that the combination of the two types of irradiation seemed to have a saving effect on the normal tissues. This latter knowledge is substantiated by the serious sequelae obtained by a few radiologists who have attempted to give the entire dose with a cobalt 60 bomb. In 1950, a survey[11] of 146 consecutive cases treated by our method from 1937 to 1944 was published. In this group no nodes could be palpated after treatment in 70 per cent and a five year cure rate of 27.3 per cent was obtained. Although this figure is not appreciably better than that obtained with surgery, it must be remembered that many inoperable cases were included in our series. It is gratifying to note that a fair number of our successful cases have now remained well for more than 10 years.

Cancer of the uterine cervix, which is surrounded by such radiosensitive structures as the rectum, bladder, and ureters, requires the most careful localization of effective therapy if serious sequelae are to be avoided. The adequate treatment of large volumes of tissue not only endangers the adjacent normal structures but may bring about late changes such as anemia and bone damage. For many years, we have used a conservative multiple radium capsule technique for early lesions which is quite safe. However, extensions into the vaginal walls and parametria are much more efficiently treated with low intensity radium needles properly inserted into the involved regions. This type of therapy can be augmented with moderate doses of conventional roentgen-ray therapy delivered to the sides of the pelvis without the production of irreparable damage. Since the depth doses are not large, supervoltage equipment is not needed for this procedure. The basic techniques were described in an article[9] published in 1948. In a series[13] of 82 patients treated in 1948 and 1949, the absolute five year cure rate for 78 patients receiving adequate therapy was 55.1 per cent. In a group of 54 stage 1 and 2 cases, the five year cure rate was 72.2 per cent and persistent sequelae were almost completely absent. This figure compares favorably with the 69 per cent reported by Liu and Meigs for a similar series subjected to radical hysterectomy and lymphadenectomy. It should be noted that an appreciable number of serious complications was observed following radical surgery.

Good results have been obtained with radium implants in a few cases of carcinoma of the vagina, vulva, metastatic inguinal nodes, breast, nasal passage, nasopharynx, orbit, bladder, and penis and of Pancoast tumor, but the material is not sufficient for a statistical survey.

SUMMARY

Low intensity heavily filtered radium sources properly applied still constitute one of the most efficient radiological methods of treatment available for accessible epidermoid carcinoma. The clinical data now available indicate that the newer supervoltage machines and radioactive isotopes will neither increase the cure rate nor reduce the number of secondary internal sequelae produced in such cases.

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ABSTRACT OF DISCUSSION

DR. LOWELL S. MILLER, Houston: In forwarding his manuscript for advance reading, Dr. Martin specifically invited a critical discussion of his paper. However, the low intensity radium sources he describes see frequent use not only in Dallas but also at the M. D. Anderson Hospital in

Houston. Hence we join Dr. Martin in endorsing them, and in sounding a needed word of caution to users of the newer methods. We do not of course believe that radium will cure everything, but it has its place.

Let me deliberately over-simplify what Dr. Martin has said: In the years since 1920, low intensity radium sources in competent hands have proved their ability to cure accessible epidermoid carcinoma—first in France, later in this country and others. In contrast, the supervoltage equipment and radioisotopes of the past decade have yet to prove themselves, and the truly clinical appraisals thus far available clearly indicate (1) that cancer has not changed its stripes to oblige the credulous and (2) that large volume, high dose techniques remain hazardous.

Recalling, though, that even radium therapy had to endure a period of trial and travail before attaining the status of demonstrated worth it enjoys today, there is reasonable hope that the new modalities eventually will be accorded similar respect. As noted by Friedman (in the symposium quoted by Dr. Martin), "It was with the early, ignorant, and erroneous administration of supervoltage irradiation that many serious and fatal injuries were produced. Now, with improved technic, these rarely occur by accident."

That low intensity radium sources will ever be supplanted in the radiologic treatment of certain types of cancer—notably the early carcinomas of the tongue, buccal mucosa, and uterine cervix—is hardly to be expected. There are other types of accessible epidermoid carcinoma, on the other hand, in which the early results of supervoltage treatment, either alone or in combination with radium, are encouraging—the carcinomas of the nasopharyngeal and posterior oral cavities, the more advanced carcinomas of the uterine cervix, and the infiltrating carcinomas of the urinary bladder.

Parenthetically, it behooves all who practice a localized type of treatment for bladder cancer—whether radiologic or surgical—to consider carefully the published work of Dr. Roger Baker,* who has demonstrated the vicious tendency of this neoplasm to extend circumferentially, in lymphatics of the bladder wall, far beyond the visible and palpable margins of the lesion. Such spread was shown to occur in 50 per cent of even the fairly early infiltrating lesions (extension through less than half the thickness of the muscle layer), and in 100 per cent of the more advanced ones—averaging 60 per cent of the bladder circumference in this latter group, and in one bladder reaching 90 per cent. The necessity for total bladder treatment in such cases is obvious.

Southern Medical Association Begins New Home

Ground was broken early in August for the new headquarters building of the Southern Medical Association in Birmingham. Dr. Milford O. Rouse, Dallas, first vice-president of the Association, attended the ceremonies and Mrs. O. W. Robinson, Paris, president of the Woman's Auxiliary to the Southern Medical Association, was represented by the councilwoman from Alabama, Mrs. John M. Chenault, Decatur.

The building is to be paid for by contributions from friends of the Association, and such contributions already have been sufficient to purchase a $50,000 lot and to begin construction on the building.

**Baker, R.: Correlation of Circumferential Lymphatic Spread of Vesical Cancer with Depth of Infiltration; Relation to Present Methods of Treatment, J. Urol. 73:681-690 (April) 1955.*

Carcinoma Of the Larynx

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AFTER almost 100 years, there is still a great deal of argument regarding the ideal treatment of carcinoma of the larynx. From year to year, there is a swing of the pendulum from conservative surgery to radical surgery and back to conservative surgery. Together with the various surgical procedures, irradiation therapy has made its bid for a place in the rational and successful therapy of carcinoma of the larynx. This further complicates the picture.

Dr. George S. McReynolds, associate professor of otolaryngology at the University of Texas Medical Branch, delivered this address before the Section on Eye, Ear, Nose, and Throat at the Texas Medical Association Annual Session in Dallas, April 29, 1957.

The ideal treatment for carcinoma of the larynx is yet to be determined. However, it is important that the first form of treatment be adequate as the secondary treatment offers a low salvage rate. An analysis of 244 cases of malignancy of the larynx, of which 165 were treated actively, is presented.

The chief advantage of irradiation therapy would seem to be the better post-therapy results insofar as voice is concerned. This, however, is not always true. Unquestionably, in properly selected cases, where a cure is accomplished by irradiation, a better voice may result. However, two factors must be emphasized. In the first place, the cases for radiotherapy must be carefully selected. These same cases are ideal for conservative surgical therapy with probably a little better percentage of cures. Second, as has been pointed out previously, the selection of a competent radiotherapist is of the utmost importance. Unfortunately, not all radiotherapists have had sufficient experience in treating carcinoma of the larynx. Too often it is difficult to convince the patient of this fact. When a patient has been referred to a laryngologist for possible surgical treatment, he is likely to prefer to remain with this surgeon because he has been recommended by another doctor. On the other hand, when a surgeon may recommend roentgen

therapy, it is often difficult for the patient to understand why he cannot go "home" for what he considers a very simple procedure. This statement should not be considered a reflection on the ability of radiotherapists, but an admission that we laryngologists have not referred to them a sufficient number of cases. The radiotherapists have had so little experience in treating this type of case that only a few have become proficient.

In my opinion, the ideal case for radiotherapy is one that is superficial and without impairment of motility of the vocal cords, whether the lesion involves one or both cords. This is particularly true in cases of involvement of both cords where the only alternative would be total laryngectomy. Also, other cases such as "carcinoma in situ" and superficial lesions that apparently involve the entire length of the cord where it is difficult, or impossible, to determine the exact limit of the involvement may be more ideally suited for radiotherapy. Furthermore, one should not consider it to be a question of radiotherapy versus surgery, but instead, the best form of treatment for the individual lesion and the individual patient. One should always keep in mind that the first plan of therapy should be definitive and not be chosen with the idea that perhaps this plan may be a cure and if not something else may be done later.

There is a difference of opinion as to the proper form of surgical therapy in carcinoma of the larynx. Some laryngologists, as Le Jeune and Figi, have described a group of early lesions for which they advocate destruction by cauterization under suspension laryngoscopy. This is a very limited group of cases, and whereas these surgeons have obtained good results by this method, it is a questionable procedure in the hands of less experienced operators.

Laryngofissure or thyrotomy is an excellent and satisfactory procedure in properly selected cases. It has been condemned by some laryngologists, probably because it has been tried in cases in which the lesion is too extensive. In properly selected cases the rate of cure should be between 85 and 90 per cent. Ideally, the lesion should be limited to the middle of the vocal cord without involvement of the arytenoid or the anterior commissure. Jackson has described a technique for lesions extending past the anterior commissure. Woodman and others have described procedures a little more radical including removal of part of the thyroid cartilage in lesions involving the anterior commissure. These procedures are limited to a very few selected cases. Except in a large series of cases few, if any, lesions are amendable to these specialized surgical procedures.

Unfortunately, the majority of cases seem to be of such an extent that they require laryngectomy or laryngectomy plus neck dissection. Several authors have written about the necessity of prophylactic neck dissection with laryngectomy even where there is no gross evidence of cervical node involvement. They have demonstrated microscopic metastatic involvement of nodes without gross evidence of enlargement of these nodes. Apparently this is particularly true of supraglottic lesions.

Apparently roentgen therapy has little to offer in advance cases of carcinoma of the larynx. A few years ago, it was advocated that the cartilages of the larynx be removed in advanced lesions by subperichondrial dissection, without removing the larynx in the hope of preserving some laryngeal function. This was done on the theory that more irradiation could be given after removal of the cartilage, thereby increasing the rate of cure. More recently, it has been suggested that removal of the primary lesion by laryngectomy might give a better chance of cure of the extension by irradiation. Neither of these suggestions seem to have any particular value. More often it seems that if the primary lesion can be arrested by irradiation, surgical excision of the extension, as by neck dissection, offers the best chance of cure, particularly in cases in which surgical removal of the primary lesion is not feasible.

UNIVERSITY OF TEXAS SERIES

In the past 15 years we have seen 244 cases of malignancy of the larynx at the University of Texas Medical Branch. Of this group, the youngest patient was 27 and the oldest was 80 years old. The grade of malignancy does not seem to have any particular bearing on the rate of cure except that the younger the patient, the more rapidly the tumor grows and tends to metastasize whereas the older the patient, the less rapidly it grows and metastasizes. Of the 244 cases, 50 received no treatment, either because the patient refused or because the lesion was deemed too extensive, or too far advanced, to justify subjecting the patient to treatment (table 1).

TABLE 1.—*Summary of 244 Cases of Malignancy of the Larynx Observed at the University of Texas Medical Branch.*

Total cases		244
No follow-up		50
Cases treated		194
Palliative roentgen ray only		29
Cases actively treated		165
Roentgen ray	13	
Laryngofissure	19	
Laryngectomy	73	
Laryngectomy and roentgen ray	21	
Laryngectomy and neck dissection	13	
Laryngectomy, neck dissection, and roentgen ray	6	
Direct laryngoscopy	1	
Others	4	
Leukoplakia	15	
Cases living and well		84

Of the remaining 194 malignancies, 29 were considered so extensive that only palliative irradiation was attempted. Even without a definite follow-up, it is safe to assume that all 29 of these patients died of carcinoma.

This leaves 165 cases that were actively treated by one of several forms of treatment or a combination of methods. An analysis of the results will be made and an attempt will be made to draw some conclusions from these cases. Although five year cures are not available in all cases, it is hoped that some trends can be established and will be of some value. Also, in malignancy of the larynx, except in rare exceptions, a three year cure is just as valid as a five year cure because of the facility of examination of the original site and also because, with rare exceptions, the primary metastasis is to the cervical node. Again, observation of the cervical region is much simpler than metastatic regions of malignancies in other primary sites.

One of the most difficult group of cases to know how to treat is the group of cases of leukoplakia of the vocal cord. This reminds one of the old joke about treating the common cold. We do not know what to do for the cold, but if it progresses to pneumonia, we can treat that. We know much more about how to treat carcinoma of the larynx than we do leukoplakia. These cases are particularly important since they are generally recognized as premalignant lesions. A certain percentage of them will develop into a frank malignancy. One can temporize with these cases if one is dealing with a cooperative and intelligent patient who can be expected to return for periodic examination. Also, it must be emphasized that one cannot rely on one biopsy for such a diagnosis. Some lesions will show leukoplakia from superficial tissue while tissue from a different area or from a deeper layer will show a definite malignant change. To reiterate, all cases of leukoplakia are potential malignancies and should be considered as such until arrested. In a person who is a heavy smoker, the lesion often will regress if the patient will discontinue smoking. If he continues to smoke, the lesion more likely will become malignant. Leukoplakia in persons who do not smoke are less likely to regress. In some such cases, where the lesion is limited to one vocal cord, resection of that cord by thyrotomy or laryngofissure may be advisable. At first thought, this may seem radical. However, those lesions do not respond to irradiation. If one can remove the potential of malignancy and prevent more extensive surgery, that is, laryngectomy, by a relatively simple and safe procedure, such as laryngofissure, it may well be worth while and justified. This is even more important in the relatively unintelligent or the indigent patient whom the physician cannot depend upon to return for frequent, periodic, follow-up examinations and repeated biopsies.

In this series, there are 27 cases that we diagnosed as leukoplakia from the first. In a number of cases the diagnosis remained the same after many subsequent biopsies. Some of these eventually showed an actual, true malignant change. Of these 27, no follow-up was available in 10. Of the remaining 17, laryngofissure was performed in 9, and in 2 cases laryngectomy was necessary when the patients finally returned. The remaining 6 still showed simply a leukoplakia at the time of the last biopsy. However, it should be pointed out that some of these 6 still may show actual malignant changes. Of this group of 17 patients, 16 are living and well today. One patient in whom a laryngofissure was done died of a recurrence.

As stated before, laryngofissure is an excellent procedure in properly selected cases. Of the 165 cases treated, a laryngofissure was done in 19 cases. This includes both the cases of frank carcinoma and the cases of leukoplakia. This may seem like a small percentage of the total group in whom this procedure was utilized, but our indications for this conservative procedure are very limited. In considering the advisability of laryngofissure, there is a good axiom to follow. If one wonders whether a laryngofissure is adequate to effect a cure, the lesion is most probably too extensive. As stated before, the lesion, ideally, should not involve either end of the cord and there should be no impairment of motility. If one is in the least doubtful, the patient either should receive roentgen therapy or should have a laryngectomy.

Of this group of 19 patients operated on by laryngofissure, a follow-up was possible in 18. Only 1 patient had a recurrence. Two of this group died of other diseases with no evidence of recurrence. This leaves 15 cases without evidence of disease and only 1 case with actual recurrence. The 2 deaths without evidence of recurrence were after one year and three years. Of the patients without evidence of disease, one is 14 years postoperative; 2 are 10 years; 1, nine years; 1, seven years; 3, six years; 2, four years; 4, three years; and 1, two years postoperative. Thus, 14 out of 15 have been well three years or longer, the other being only one year postoperative. One of the patients had what might be considered a hemilaryngectomy. Frozen section at the time of operation showed that the tumor, while localized to the middle one-third of the cord, had invaded down to the internal perichondrium. Because of this, the adjacent portion of the thyroid cartilage also was removed. This patient is well without evidence of recurrence after six years.

As one might expect, the largest group of cases is the one treated by laryngectomy. There were 73 cases in which a laryngectomy was performed. No follow-up was possible in 13 of these cases. There was 1

operative death in a patient who had had a known, previous coronary occlusion. Also, there were 2 postoperative deaths due to pneumonia. Eleven of these patients had a recurrence, leaving 41 free of disease. Of the 60 patients followed, 41 are free of disease. Thirty-one are well three years or longer; 38, two years or longer.

Also there were 21 patients in whom a laryngectomy was performed, followed by irradiation. No follow-up was available in 2 of these. Eleven died of recurrence, leaving 8 patients living and well, five to 10 years after treatment.

A small group of 13 cases was treated by laryngectomy and neck dissection. There was no follow-up in 1 case. Of the remaining 12 patients, 9 died of recurrence, leaving only 3 living and well. Seven of the 13 cases were pyriform sinus lesions. Of the 3 surviving patients, 2 had pyriform sinus lesions, 1 living nine and 1 four years and the third had an intralaryngeal lesion with gross evidence of cervical node metastasis (living one year after surgery).

There were 6 cases treated by laryngectomy, neck dissection, and roentgen ray. None of these 6 patients survived.

The cases treated by roentgen ray have been divided in two groups. Twenty-nine patients were given what was considered as palliative therapy only. These cases were extensive with metastasis and/or extrinsic lesions. All of these patients can be assumed to have died of the disease. There were 13 early lesions treated by roentgen ray. Of these, there was no follow-up in 3 cases. One patient died of a carcinoma of the bronchus and another died of heart disease, neither having any evidence of the original disease. One patient has a recurrence after five years. This patient was originally advised to have a laryngectomy but refused and was not considered an ideal patient for roentgen-ray therapy. Of the 10 cases followed 7 patients are living and well, 2 of the patients dying of other diseases without evidence of recurrence and 1 having a recurrence.

From the foregoing, it can easily be seen that early diagnosis is important since the percentage of cures in such cases is so much higher than in cases further advanced. This may seem trite to repeat. However, it also seems obvious from the 50 cases in which lesions were too extensive for treatment plus the 29 cases in whom only palliative roentgen therapy was given that we still have not repeated this statement too often. Of the total 244 patients only 84 or 34.4 per cent are living. Of the 165 actively treated only 84 or 50 per cent are living.

Our results in the cases of more radical surgery have been disappointing. Perhaps if more cases of neck dissections were done on the patients on whom only laryngectomy was performed our statistics for radical surgery would look more convincing. In our series where there was a question of cure by laryngectomy, better results were obtained by postoperative irradiation.

In conclusion, carcinoma of the larynx is still an interesting and challenging problem. There are still problems to be solved.

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ABSTRACT OF DISCUSSION

DR. HERBERT H. HARRIS, Houston: Dr. McReynolds' cure rate of approximately 60 per cent is well within that considered by most laryngologists as very good results. He and I seem to agree fairly well that the best treatment for carcinoma of the larynx is that which will cure the patient. I do not feel that we should take any particular issue on whether surgery or roentgen ray is better, but try to recommend the best treatment for that particular patient. I might add, however, that in many instances roentgen-ray treatment to the larynx has been found entirely satisfactory if given by one who is experienced and who understands the problem of radiation.

It is my feeling that more radical neck dissections should be done where surgery is contemplated for removal of the larynx, when indicated. While the surgery is a little more formidable, the morbidity is certainly no higher, and in my experience the mortality has been no greater.

Surgical Lesions Of the Thyroid

WARREN H. COLE, M. D.

Chicago, Illinois

SINCE there is inadequate time to discuss all of the surgical lesions of the thyroid, I shall limit my discussion to some of the important or controversial aspects of toxic diffuse goiter, toxic nodular goiter, and carcinoma. First I wish to call attention to the apparent decrease of the incidence of thyroid disease; for example, in the Illinois Research Hospital between the years 1936 and 1940, 14.9 per cent of the operations performed by my associates and me were for thyroid lesions. Since then, there has been a steady decline. An analysis of figures between 1952 and 1956 reveals that only 6.6 per cent of the operations performed were for thyroid lesions. As might be expected, there is a difference in the incidence of the various types of goiters. In this period, toxic diffuse goiters decreased by 25 per cent; operation for toxic nodular goiter decreased by 66 per cent. On the contrary, the operations for nontoxic nodular goiter increased by more than 100 per cent (table 1).

TOXIC GOITER

Since there is a great deal of difference between the manifestations and treatment of toxic diffuse goiter and toxic nodular goiter, they will be considered separately.

Dr. Warren H. Cole, professor and head of Department of Surgery, University of Illinois College of Medicine, presented this paper as a refresher course April 29, 1957, at the Texas Medical Association annual session in Dallas.

Nontoxic nodular goiter and carcinoma of the thyroid are definitely surgical lesions, but toxic diffuse goiter may be either surgical or medical since some utilize thyroidectomy for this lesion whereas others use radioactive iodine. Elimination of thyrotoxicosis can be achieved in toxic diffuse goiter by radioactive iodine, but radioactive iodine may possibly produce carcinoma.

TOXIC DIFFUSE GOITER

At the present time toxic diffuse goiter is about twice as common as toxic nodular goiter in the Chicago area.

Manifestations.—The diagnosis of toxic diffuse goiter can be made with accuracy when exophthalmos accompanies the symptoms of thyrotoxicosis. However, since exophthalmos occurs in only about one-half of the patients with toxic diffuse goiter, there naturally will be a large group of patients in whom diagnosis is uncertain. If the thyrotoxicosis is mild, it can be readily confused with symptoms of neurosis and menopause. It is likewise known that the basal metabolic rate is inaccurate and must not be used as the most important factor deciding the diagnosis. Often when there is doubt concerning diagnosis of hyperthyroidism, a course of iodine therapy (Lugol's solution) can determine easily the diagnosis. If the patient's symptoms are from hyperthyroidism, the manifestations will be reduced considerably in 5 or 6 days by the iodine.

However, the most accurate method in establishing a diagnosis of hyperthyroidism is the determination of uptake of radioactive iodine. In euthyroid persons the uptake following an oral dose will be less than 35 per cent at the end of 24 hours in about 90 per cent of patients. In patients with hyperthyroidism the uptake is more than 35 per cent in 90 to 95 per cent of cases. An analysis of the level of protein-bound iodine may add to the accuracy of the radioactive iodine test in diagnosis. In hyperthyroid patients 24 hours after ingestion of radioactive iodine, 95 per cent or more of the radioactive iodine in the blood is present as protein-bound iodine. In euthyroid persons less than 45 per cent of the iodine will be present in the protein-bound form.

Treatment.—At present there is disagreement as to the best method of treatment for toxic diffuse goiter. Many workers in the thyroid field have abandoned the surgical removal of the thyroid and have adopted the use of radioactive iodine.

Although I admit radioactive iodine is an effective agent in the treatment of toxic diffuse goiter, I still favor thyroidectomy largely because of the possible danger of production of carcinoma of the radioactive iodine burn in the thyroid. Although it is true that there are no proven cases of production of carcinoma by radioactive iodine, it is realized that if carcinoma should be induced by the agent it would probably take at least 20 years for its development, and the drug has not yet been given that long. In spite of the absence of proven cases, the recent discovery initiated by Duffy and Fitzgerald[1] revealed that a remarkably large percentage of adolescents with carcinoma of the thyroid had a history of roentgen-ray radiation in their infancy. For example, Clark and Rule[2] reported that all of their 15 patients with thyroid cancer, 15 years of age or younger, had had roentgen-ray treatment in infancy or early childhood for tonsillitis, pertussis, enlarged thymus, or cervical adenitis. Moreover, in our series[3] of 15 patients with thyroid cancer, 20 years of age or younger, 10 had received radiation to the head and neck when they were between the ages of 2 months and 6 years. All 10 patients in our series, 15 years or younger, had had roentgen-ray therapy, whereas 5 patients between the ages of 15 and 20 years had not had radiation; the total dose varied between 200 and 625 r with the average about 430 r.

In a detailed follow-up study of 1,630 patients having thyroidectomy for hyperthyroidism, Cattell[4]

TABLE 1.—*Relative Incidence of Thyroid Lesions, Operated on 1936 to 1956.*

Years	Toxic Diffuse Goiter (%)	Toxic Nodular Goiter (%)	Nontoxic Nodular Goiter (%)	Carcinoma (%)	Thyroiditis (%)
1936 to 1940	41.7	31.4	21.7	0.37	0.49
1940 to 1944	41.5	18.5	37.0	3.1	0.4
1944 to 1948	41.0	11.8	41.1	3.0	0.4
1948 to 1952	20.4	15.0	58.3	4.0	2.8
1952 to 1956	32.1	8.0	53.7	4.7	1.6

noted good results in 95 per cent. In 1,000 consecutive cases of his series the mortality rate was 0.2 per cent; tetany occurred in 1.5 per cent, nerve injury in 1 per cent, and recurrence in 2.4 per cent of cases.

Admittedly, treatment with radioactive iodine obliterates the possibility of nerve injury and almost completely obliterates the recurrence of tetany after treatment. In 628 patients with hyperthyroidism treated with radioactive iodine, Clark and Rule[5] reported good results in 82.8 per cent. In this group varying degrees of hypothyroidism were noted in 17.2 per cent. In 56 per cent of their patients, the desired result was obtained with only one dose; two doses were required in 25.5 per cent; and three or more doses in the remainder or 18.4 per cent. Crile and McCullagh[6] reported 14 millicuries as the average dose utilized by them. Severe thyroid crises occasionally may develop following the use of radioactive iodine, but they are very rare. Experimentally Doniach[7] has reported the production of an occasional cancer of the thyroid following the use of radioactive iodine and methylthiouracil in rats.

If the surgical method is to be utilized in the treatment of toxic diffuse goiter, antithyroid drugs are advisable first to produce euthyroidism; propylthiouracil, Tapazole, and methylthiouracil are equally effective. However, there is a great tendency among clinicians to give inadequate dosage of these drugs with a delay in production of euthyroidism. The dose for propylthiouracil is 500 to 600 mg. per day. Bartels and Kohn[8] have reported that doses of propylthiouracil equal to 600 to 1,000 mg. per day seldom result in reactions. It is obvious that 300 mg. per day should be the minimum dose utilized unless sensitization develops. The dose for Tapazole is 80 mg. per day. Each of these drugs should reduce the basal metabolic rate about one point per day. Toxic reactions consist of neutropenia, fever, urticaria, and dermatitis, but they are uncommon with each of the three drugs. However, with prolonged, heavy dosage the white blood count should be taken once or twice per week and the patient instructed to report to the physician immediately if a sore throat or other significant symptoms develop. The appearance of infection might be an indication that leukopenia and agranulocytosis were present. Just before euthyroidism is produced, and about the time the basal metabolic rate is plus 10, treatment with Lugol's solution in doses of 10 or 15 drops per day should be instituted. The iodine reduces vascularity and friability of the gland. In fact this result is so striking that no operation should be performed with the patient on propylthiouracil therapy unless iodine had been given 12 to 18 days before the date of operation. It is well known that permanent remissions may be obtained with antithyroid drugs in 40 to 50 per cent of cases. However, in the opinion of most clinicians, this incidence is too low to justify use of antithyroid drugs. The antithyroid drugs should be withdrawn from therapy 4 to 5 days before operation to prevent the possible development of a severe reaction (that is, agranulocytosis) on the day of operation.

TOXIC NODULAR GOITER

There is likewise controversy among clinicians as to the desired treatment of toxic nodular goiter although perhaps the majority of them believe the use of radioactive iodine alone is not justifiable as in the treatment of toxic diffuse goiter. Even though the radioactive iodine therapy would reduce the thyrotoxicity satisfactorily, the patient still would be left with a nodule. Most clinicians consider the danger of development of malignancy in this nodule is too great to justify leaving it in.

If operation is to be decided upon as the treatment of choice, the thyrotoxicity first should be eliminated. This can be done with radioactive iodine. Since the reduction of hyperthyroidism can be achieved just as readily with antithyroid drugs as with radioactive iodine, it would appear desirable to use the former and avoid the slight possibility of future complications (development of malignancy) in the patient. I prefer reduction of hyperthyroidism with propylthiouracil as described previously, and then thyroidectomy after 2 weeks' therapy with iodine (Lugol's solution).

INDICATIONS AND CONTRAINDICATIONS TO RADIOACTIVE IODINE

Practically all workers in the thyroid field agree that radioactive iodine is the treatment of choice in recurrence of hyperthyroidism following thyroidectomy. It is likewise indicated in patients who are extremely poor risks or who have some disease complicating the hyperthyroidism. Likewise it will be indicated in patients who refuse operation.

There are several contraindications which are agreed upon by all. Even those who are strongly in favor of radioactive iodine do not give it to children. Almost all clinicians would not use it as the definitive treatment in toxic nodular goiter, particularly if a solitary nodule is present. Radioactive iodine must not be given for hyperthyroidism to patients who are pregnant or lactating.

CARCINOMA OF THE THYROID

There is much controversy concerning numerous phases of carcinoma of the thyroid. In the first place, there is difference of opinion regarding the incidence of carcinoma in nodular goiter. The incidence is reported between 5 and 17 per cent as indi-

cated in table 2. At the Illinois Research Hospital during the period 1936 to 1953, my associates and I[9] encountered carcinoma in 15.6 per cent of patients with nontoxic nodular goiter. In patients with solitary nodules, the incidence was 20.9 per cent compared to 8.7 per cent in patients with multinodular nontoxic goiter. We found carcinoma in only 1 per cent of patients with toxic diffuse goiter. There is considerable disagreement relative to the origin of carcinoma of the thyroid. However, most workers in this field now believe that the majority of carcinomas of the thyroid arise as separate tumors and not in preexisting nodules. In our series at Illinois Research Hospital only 9 per cent of patients with nontoxic nodular goiter were males, but 36 per cent of the patients with carcinoma were males. This indicates that the danger of cancer in nodular goiter is presumably four times greater in males than in females. The average age of patients in our series with benign nontoxic goiter was 44.5 years, and of patients with cancer of the thyroid, 47.5 years. The duration of the enlargement of the neck was 11.8 years in patients with nontoxic nodular goiter as compared to 4.1 years in patients with cancer.

TABLE 2.—*Incidence of Thyroid Cancer in Nontoxic Nodular Goiter as Reported in the Literature.*

Author	Location	Year	Carcinoma in All Nontoxic Nodular Goiters (%)	Carcinoma in Solitary Nontoxic Nodular Goiters (%)
Beahrs et al.[16]	Rochester, Minn.	1951	3.8	
Cerise et al.[17]	New Orleans	1952	17.3	19.8
Cole et al.	Chicago	1952	15.6	20.9
Cope et al.[18]	Boston	1949	10.1	19.0
Crile[19]	Cleveland	1950	10.9	24.5
Hinton & Slattery[20]	New York	1952	7.2	
Lahey & Hare[21]	Boston	1951	5.9	10.0
Waldron et al.[13]	Houston	1957	15.2	11.1
Ward[22]	San Francisco	1944	4.8	15.6
Young[23]	Oklahoma	1950	9.4	18.2

All surgeons have noted a greater incidence of carcinoma in children with nodules in the thyroid than in adults. In our series[3] 31.1 per cent of children with nodules in the neck had carcinoma. In an extensive series of 145 cases assembled from the literature Winship and Chase[10] noted an incidence of 29 per cent of carcinoma in children with nodular goiter.

PATHOLOGY

Almost all pathologists have different classifications for carcinoma of the thyroid. There is so little agreement that McDermott and his associates[11] offered a simplified classification which may be adequate from the standpoint of treatment. They divided the tumors into three groups: (1) papillary, (2) follicular, and (3) undifferentiated. In their series of 179 patients with carcinoma of the thyroid, they classified 50 per cent as papillary and 25 per cent as each of the other two groups. All agree that papillary tumors are more prevalent in young people than in old people. Distant metastases are uncommon although metastasis appears early in the lymph nodes. Blood borne metastases are not common in papillary tumors.

DIAGNOSIS

A preoperative diagnosis of carcinoma of the thyroid is difficult. In a study made by my associates and me a few years ago, we found that the manifestations of nontoxic nodular goiter and carcinoma of the thyroid were remarkably similar (table 3).

TABLE 3.—*Comparison of Incidence of Symptoms in Nontoxic Nodular Goiter and Thyroid Cancer at Illinois Research Hospital.*

Symptoms	Benign Nontoxic Nodular Goiter (% in 100 Consecutive Cases)	Thyroid Cancer (% in 50 Consecutive Cases)
Hoarseness	21	38
Increase in size	56	42
Asymptomatic	33	20
Cough	33	24
Dysphagia	29	34
Feeling of pressure	48	44
Choking sensation	35	36
Dull ache	12	12

After Majarakis, J. D.; Slaughter, D. P.; and Cole, W. H.: Carcinoma of Thyroid Gland, J. Clin. Endocrinol. 13:1530-1541 (Dec.) 1953.

Actually, rapid increase in size of the gland, and cough, are more frequent in patients with benign goiter than in patients with malignant goiter. However, the incidence of hoarseness is definitely greater in patients with carcinoma. We noted also that in 60 patients with nontoxic nodular goiter examined for vocal cord paralysis, no paralysis was found, although we admit nontoxic nodular goiter in a larger series would be responsible for a small number of patients with vocal cord paralysis (perhaps 1 or 2 per cent). However, in our series of patients with

carcinoma of the thyroid, vocal cord paralysis was present in 28.8 per cent.

Because of the difficulty in establishing the diagnosis preoperatively and because of the danger of spread of the carcinoma by a needle biopsy, operation is the procedure of choice in nodular goiter, especially if it is nontoxic.

TREATMENT

As intimated previously, the diagnosis of carcinoma of the thyroid seldom will be made preoperatively, unless it has invaded to the degree of inoperability. Because of the high incidence of carcinoma in nontoxic nodular goiter, I recommend a fairly complete lobectomy on the involved side, including the isthmus, assuming that the other side is normal by surgical exploration. With a relatively small nodule, a subtotal thyroidectomy can be performed, but the surgeon should wait for microscopic examination by frozen section before closing the wound. If the diagnosis of malignancy is returned by the pathologist, then a radical neck dissection should be done.

Crile[12] favors a conservative type of operation consisting of lobectomy and removal of the palpable metastatic nodes if present. It was his opinion that for a papillary carcinoma conservative therapy will be adequate, and that for other types of carcinoma, a radical operation will be unsuccessful.

Most surgeons favor radical neck dissection for all types of carcinoma of the thyroid, assuming they are operable. A radical approach consists of the removal of the entire lobe, all of the areolar and lymphatic tissues, the strap muscles, and the internal jugular vein on the involved side. There is a slight difference of opinion as to whether or not the lobe on the uninvolved side should be removed. However, if the lesion is papillary and no metastases are found elsewhere, it would appear wise to leave the other side intact, except that removal of the anterior half would be desirable because the tumor occasionally may extend into the opposite side. If metastases are noted beyond the limits of resection in the neck, operation is, of course, contraindicated.

Nonsurgical methods of treatment are indicated if distant metastases develop or if all of the tumor is not removable by operation. Desiccated thyroid, radioactive iodine, and roentgen ray or radium therapy are available; recent experiences indicate that the former (instituted by Dunhill) is probably the most effective. It is given daily, in large doses of 2 to 4 grains per day. Remissions are common following the use of desiccated thyroid, but there is no evidence that it will result in cure of the disease.

If radioactive iodine is used, it is desirable to remove the uninvolved lobe, since its removal increases the uptake of iodine. However, it must be remembered that even after total thyroidectomy not more than 10 per cent of patients with carcinoma of the thyroid will reveal significant uptake of iodine in their cancer. Some authorities recommend giving a thyroid-stimulating hormone (TSH) or propylthiouracil to increase the uptake of iodine in the cancerous deposits. Waldron and his associates[13] reported that under heavy doses of TSH, the thyroid of 40 to 60 per cent of patients with carcinoma of the thyroid will pick up radioactive iodine. However, serious reactions (rare) from TSH have been reported. Maloof and his associates[14] warned that the beneficial effect of TSH may be neutralized or outweighed by the growth stimulus imparted to the metastases. Roentgen-ray therapy is utilized in metastatic carcinoma but in general is no more effective than radioactive iodine in the treatment of metastases.

All workers agree that papillary tumors of the thyroid are much less invasive than other tumors. It is agreed that a comparatively conservative operation would be sufficient for many patients with papillary tumors. However, in papillary tumors practically all surgeons have noted metastases in the adjacent lymph nodes. Frazell and Foote[15] have demonstrated the need for a radical procedure by studying the excised specimen in patients having a radical neck dissection in the absence of palpable metastatic lymph nodes; they found positive nodes in 61 per cent of the specimens removed even though they were not palpable

TABLE 4.—*Five-Year Survival Rates (Mean) in All Types of Thyroid Cancer as Reported in the Literature.*

Author	Location	Year	No. Patients Followed 5 Yr.	Five-Year Survival (Mean) %
Beahrs & Judd[24]	Rochester, Minn.	1951	284	71.5
Horn et al[25]	Philadelphia	1947	42	55.0
Frazell & Foote[15]	New York	1950	215	39.1
MacFee[26]	New York	1952	34	38.2
Cohen and Moore[27]	Minneapolis	1954	84	37.0
Cole et al.[9]	Chicago	1952	49	36.8
Portman[28]	Cleveland	1940	149	35.5
De Quervain[29]	Switzerland	1935	108	17.5
Total			965	47.2

preoperatively. This is a strong argument for radical operation even in papillary carcinoma.

RESULTS

The results of therapy for thyroid carcinoma vary considerably as reported by various authors throughout the country (table 4). It is difficult to understand such a large variation in results. It is possible that the strong limitations on diagnosis by some pathologists would alter the results considerably. There is a slight possibility that geographic location might alter the character of the tumor, but this possibility would appear to have little support since it is not found in other tumors. An important factor in the 5 year survival rates will be the percentage of patients with papillary tumors. McDermott and his associates[11] reported a 5 year survival of 73 per cent in papillary tumors. This no doubt would compare closely with the experiences of other authors.

SUMMARY

For treatment of toxic diffuse goiter, I still favor thyroidectomy after preparation of the patient with propylthiouracil and iodine. Radioactive iodine is effective in eliminating thyrotoxicosis, but the danger of production of carcinoma by this agent cannot be excluded completely, particularly in view of the high incidence of radiation to the neck region (in infancy) in patients 15 years or younger with carcinoma of the thyroid. For patients with toxic nodular goiter thyroidectomy after reduction of thyrotoxicity with propylthiouracil and iodine appears to be the preferred treatment. There is agreement that radioactive iodine is indicated in recurrent toxic goiter, in very poor risk patients, and when operative treatment is refused; the agent is contraindicated in pregnant or lactating women and in children with toxic goiter.

For treatment of carcinoma of the thyroid I recommend radical neck dissection. Results will be much better in papillary carcinoma, in which group the 5 year survival rate is expected to be as high as 75 per cent. Desiccated thyroid is perhaps the most effective method of treating metastases from thyroid carcinoma.

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Carcinoma of the Male Breast

F. A. SELECMAN, M. D.
R. A. McCALL, M. D., and
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AN OFTEN overlooked part of a physical examination by the hurried physician is an adequate consideration of the male breast. Public education campaigns should emphasize, both to the laity and the profession, the significance of masses in the male breast.

Dr. Frank A. Selecman is a general surgeon and is associated with the University of Texas Southwestern Medical School in Dallas. He presented this paper at the April 1, 1957, meeting of the Texas Surgical Society in Dallas.

Carcinoma of the male breast constitutes about 1 per cent of all breast cancers. Diagnostic symptoms are similar to those in the female, though with varying significance. Radical mastectomy, followed by irradiation if axillary metastases exist, is the treatment of choice. Castration and later adrenalectomy may be helpful.

Carcinoma of the male breast is deserving of consideration as the majority of authors hold that a poor prognosis is the rule. Whetting the diagnostic acumen by increasing the physician's awareness can aid in earlier diagnosis.

This presentation will attempt to correlate recent information regarding the incidence, diagnosis, prognosis, and treatment of cancer in the male breast. Three cases are presented herein.

CASE REPORTS

CASE 1.—C. R. F., age 53, on August 18, 1945, reported soreness of the breast for 24 hours and inability to sleep the previous night on this account. The lump was excised the same afternoon, and following frozen section a radical mastectomy was performed. Pathological diagnosis was duct-cell carcinoma, grade III, with hyperplastic axillary lymph nodes. The patient received roentgen-ray therapy to the chest and axilla which he says caused prolonged morbidity. When he was examined in September, 1956, there was no evidence of recurrence.

CASE 2.—R. E. C., age 50, height 5 feet 9 inches, weight 240 pounds, noted a lump in the right breast for 6 weeks

and stated that he had noted a secretion of milk 2 years before. A firm, irregular nodule was palpable at the upper lateral border of the areola. On January 31, 1950, following biopsy and frozen section, a radical mastectomy was performed. Pathological diagnosis was duct-cell carcinoma of the breast and reactive hyperplasia of lymph nodes.

On August 27, 1951, left simple mastectomy was performed for questionable tumor. Pathological diagnosis was fibro-fatty tissue, breast.

The patient died March 5, 1952, from malignant hypertension without evidence of recurrence.

CASE 3.—L. S., age 47, noted a lump in the right breast for 6 months, and was concerned only with recent increase in size. An irregular hard lump, approximately 3 cm. in diameter, lateral to the right areola, was noted. Skin attachment was definite and one firm node was palpable in the axilla. A chest roentgenogram was negative. On May 14, 1954, biopsy, frozen section, and radical mastectomy were performed. Pathological diagnosis was adenocarcinoma, grade III, with 3 of 25 axillary lymph nodes showing metastasis. No postoperative roentgen-ray therapy was given. The patient continues in good health, and is doing his job as a mechanic for a bus company.

INCIDENCE

Carcinoma of the male breast is reported to occur approximately once in every 100 breast cancers. Statistics vary from .87 per cent[28] to 2.2 per cent[27] with respect to all breast cancer (table 1). Sachs stated that only .38 per cent of male carcinomas are of the breast.[30] Neal found 30.36 per cent of 165 male breast tumors to be carcinoma and 6 per cent to be sarcoma.[23] The incidence of bilateral malignancy was 2.7 per cent, or approximately the same as in females.

This low incidence may be related to the lack of the cyclic stimulus present in the female. Blain noted that the male breast follows the general rule that a functionless vestigial structure usually is not the site of tumor formation.[1] Others think that this may not be quite true, as the male breast is a complex series of ducts lined by a single layer of columnar epithelium resembling somewhat the preadolescent female breast.[27, 30]

TABLE 1.—*Incidence of Male Breast Cancer.*

Author	In All Breast Cancer	In Male Breast Tumors
Jackson, Munnell	0.92	
Neal	1.24	30.36
Payson, Rosh	2.2	
Peck	0.87	34.9
Sachs	1.32	
Treves, Holleb	1.0	

AGE OF OCCURRENCE

The average age at which carcinoma of the male breast occurs generally is reported to be slightly higher than that of the female, with averages ranging from 52.1[36] to 61[14] years (table 2). The average age at which carcinoma of the female breast occurs was 53.8 in 186 cases reported by Lewison.[18]

Hartman and Magrish recorded a case in a 6 year old male, and Lewison reported the highest known age of occurrence to be 93.[18]

TABLE 2.—*Age of Occurrence of Male Breast Cancer.*

Author	Youngest (yr.)	Oldest (yr.)	Average (yr.)
Hunt, Kraft	12	91	57.0
Jackson, Munnell	43	76	61.0
Neal	30	89	57.7
Payson, Rosh			56.6
Peck			59.5
Sachs			57.17
Treves, Holleb	24	85	52.1
Wainwright	23		54.2

DURATION OF SYMPTOMS

The average recorded duration of symptoms ranges from 6 months to 3.14 years. These figures are based on cases of from 3 weeks to 5 years in duration. Other authors have reported isolated cases in which a history of breast abnormality could be elicited of from 20 to 40 years.

The interval between onset of difficulty and seeking medical advice most frequently is reported to be longer than 1 year. Delay may be attributed to (1) male vanity, (2) lack of knowledge regarding the significance of a breast mass, (3) male role as breadwinner making a visit to the physician inconvenient, and (4) physician's failure to examine.

This represents a paradox, in that the relative sparcity of tissue should make the early discovery of abnormality and consequent early consultation the rule.

ETIOLOGY

Attempts to correlate various factors in the etiology of male breast carcinoma fail to produce any clear-cut relationships even in those cases following estrogen administration in the treatment of carcinoma of the prostate.

McClure and Higgins stated: "The Committee on Research of the Council on Pharmacy and Chemistry of the American Medical Association sent a questionnaire to 150 urologists asking whether or not they had observed breast cancer in any patient treated with estrogens for prostatic cancer. It showed that out of a total of approximately 17,000 patients, there was only one additional possible case of cancer of the male breast."[21]

Although a few cases of male breast carcinoma have occurred following or during estrogen therapy, the percentage relationship to the total number treated remains small and borders on simple coincidence.

However, the occurrence of breast enlargement may be attributed to estrogen, and the hormone's ability to produce one abnormality does not presuppose that other more serious effects will not be obtained. At the present time, the cause and effect relationship can only be suspected.

Karsner discounted the possibility of gynecomastia being a premalignant lesion: "The reports of malignant changes in gynecomastia evidently are based on the assumption that any enlargement of the male breast is gynecomastia. No consideration is given to the possibility that enlargement may be due to the neoplasm rather than to the phenomena which constitute gynecomastia. . . . if it ever follows gynecomastia, [it] is exceedingly infrequent."[15] Gilbert found 9 of 19 patients with carcinoma of the breast to have had gynecomastia;[4] Huggins, Jr. and Taylor, only 1 of 75 cases;[12] and Treves and Holleb, none in 146 cases.[36]

Heredity is apparently of significance only in those individuals in whom there is a high familial incidence of cancer. Carcinoma of the male breast has been reported in all races.

Although trauma often has been implicated as a cause of malignancy of the male breast, one should consider that the incidence of significant and repeated traumas greatly exceeds the incidence of male breast carcinoma. Lewison quoted Ewing, ". . . traumas reveal more malignant tumors than they cause."[19]

DIAGNOSIS

Important signs and symptoms in the diagnosis of male breast carcinoma are much the same as in the female. The significance varies somewhat. A mass or tumor (73 of 75 cases are located beneath the nipple, reported Huggins, Jr. and Taylor) is the most frequent complaint.[12]

Pain occurs less frequently than in the female and is usually a late symptom. Skin retraction is more often noted in the male. One should remember that skin changes may be due to an expanding lesion as well as an infiltrating one, and will be seen in a high proportion of benign tumors in the male.

Ulceration is a more frequent occurrence, ranging from 25 per cent reported by Treves and Holleb[36] to 60 per cent reported by Peck.[28] It is to be noted that Haagenson and Stout did not record ulceration as a presenting complaint in 378 cases of female breast carcinoma.[7] That ulceration may play a part in poor prognosis was emphasized by Huggins, Jr. and Taylor, pointing out that skin ulceration with its attendant chronic inflammation and increased blood and lymph flow speeds tumor embolization.[12]

Although Sachs recorded 48.3 per cent of his cases with axillary involvement,[30] Peck reported 80 per cent;[28] Payson and Rosh, 72 per cent;[27] and Guthorn, 73 per cent.[6] The average involvement is higher than the 61 per cent of 495 cases reported by Haagenson and Stout in the female.[7] The altered prognosis in axillary involvement is well known.

Discharge from the nipple, while infrequent, obviously is more significant than in the female and particularly if bleeding is present.

Differential diagnosis of the following benign conditions should be considered: gynecomastia, syphilis, tuberculosis, adenofibroma, hemangioma, lipoma, sebaceous cyst; and Paget's disease and sarcoma as malignant lesions.

PATHOLOGY

All histologic types of carcinoma of the breast found in the female have been recorded in the male. These may be indistinguishable microscopically. Behavior is the same with extension, recurrence, and metastases to the same areas. Sachs stated that osseous metastases from male breast cancer are osteolytic only,[30] but Savlov quoted a case report by Castillo in which osseous metastases were osteoblastic with castration followed by osteolysis.[31]

It is of interest that sarcomas are relatively more frequent in the male than in the female breast.[23]

Wainwright has held that in dealing with malignancy here, as elsewhere, the higher the grade of malignancy the poorer the prognosis.[37]

THERAPY

Biopsy and radical mastectomy should proceed in an orderly and well planned manner following the established principles of radical breast cancer surgery. Operability is determined as in similar involvement of the female breast.

Roentgen-ray therapy is indicated when axillary metastases are present.

Castration may be followed by responses as dramatic as those seen in prostatic carcinoma.[31] The exact place of castration has yet to be determined, but its value in the presence of symptomatic metastases is well documented.[3,9,31,33] Probably two-thirds of patients so treated exhibit tumor regression and/or palliation.[19] Orchiectomy alone is useful in inoperable or poor risk patients.[33]

Lewison advocated the use of estrogens in those who fail to respond to orchiectomy,[19] whereas Treves stated that stilbestrol is ineffectual in the patient with reactivation following castration.[33]

Adrenalectomy has been proposed in advanced cases of carcinoma of the male breast. It has been demonstrated that hypertrophy of the adrenals follows castration.[33] It has been postulated that the relatively short duration of improvement observed in some patients with advanced breast cancer following

the production of hormonal imbalance is the result of a delayed compensatory adrenal activity which counteracts the produced imbalance. Adrenal cortical hyperplasia also has been found in cancer cases of several types[26] subjected to autopsy. Dao stated that ". . . when after orchiectomy there is no improvement, or there is remission with subsequent relapse, it is postulated that there is production of steroid hormones from extragonadal sources in the body causing failure or reactivation of the disease; the source of the extragonadal steroid hormones was found to be the adrenal cortex."[2] He reported 2 cases of his own, 1 with good results for 6 months and the other for more than 3 years.

That the beneficial results followed by adrenalectomy are not due to maintenance steroids alone has been shown by West and others.[38]

In selection of patients for this procedure the patient who responded well to orchiectomy initially may receive the greatest benefit from adrenalectomy.

Chemical adrenalectomy, 200 to 300 mg. of cortisone per day, may produce remission which is usually short lived. This regimen may be of value in the patient not able to tolerate surgery.

Hypophysectomy should be considered for male as well as female.

RESULTS

A glance at table 3 and comparison with the 5 year survival rate of Haagenson and Stout of 58.2 per cent[7] is sufficient to illustrate the difference in results between treatment of carcinoma of the male and female breast.

COMMENT

The generally poorer prognosis of carcinoma of the male breast may be due to several reasons. The short distance the tumor cells must traverse with early invasion of the surrounding tissues and its associated complications coupled with a greater delay in seeking advice may be the most significant.

When the statistic reported by Haagenson and Stout that in the female 48 per cent of their cases were of less than 6 months' duration[7] is compared to the average duration recorded herein (more than 1 year), it becomes apparent that delay is at least of equal importance with the anatomical considerations in the treatment and prognosis of male breast carcinoma.

Treatment should consist initially of the same sound surgical principles of radical mastectomy utilized in the female, to be followed by irradiation in the presence of axillary metastases. Castration frequently is followed by beneficial results in palliation of recurrence, or in those inoperable, at least in pain relief and subjective well being and frequently by regression of tumor and metastases.

When reactivation following castration occurs, one must decide whether estrogens, chemical adrenalectomy (cortisone), or bilateral adrenalectomy will afford the greatest relief.

TABLE 3.—*Results of Treatment of Male Breast Cancer.*

Author	Cases followed	With or Without Disease, 5 year survival %	Without Disease, 5 year survival %	10 year survival %
Gilbert, 1933 . . .	26	19		
Hartnett, 1948 (Quoted by Savlov)[29]	50	22		
Huggins, Jr. and Taylor, 1955 . . .	42	19	12	
Payson and Rosh, 1949	16	50	19	
Peck, 1944	10	30	10	
Sachs, 1941	197	48		3
Sumerville, 1952 . .	18	27.4		14.3
Treves, 1955	35		29.1	
Wainwright, 1927	111	19		

SUMMARY

Carcinoma of the male breast represents approximately 1 per cent of all breast cancers.

The average age at occurrence ranges from 52 to 61 years.

Delay in diagnosis is remarkable in that duration of symptoms averages more than one year.

Gynecomastia is not likely to be a forerunner or to have been present.

Skin changes, for example, dimpling and ulceration, are common.

Nipple discharges are more significant than in the female.

Sarcomas are relatively more frequent in the male than in the female breast, for example, 6 per cent versus 1+ per cent.

Therapy is standardized as in the female.

Two-thirds of patients with metastasis show regression or good palliation following castration.

Bilateral adrenalectomy is to be considered for recurrences following castration.

Prognosis for 5 year survival averages 30 per cent for male versus 58 per cent for female patients.

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A complete list of references may be obtained from the author; it also is available with reprints of this article.

Dr. Selecman and Dr. McCall, 410 Medical Arts Building, Dallas.

Dr. Arnspiger, Methodist Hospital, Dallas.

Can the Cure Rate Of Squamous Cell Carcinoma of the Uterine Cervix Be Improved?

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SINCE the institution of radiation therapy in the treatment of squamous cell carcinomas of the uterine cervix shortly after the beginning of the century, two major advances in techniques have produced a rise in the cure rate. The first decade of radium therapy was marked by occasional cures obtained at the expense of numerous complications. The development, first of the Stockholm technique and, a few years later, of the Paris technique made systematic cures possible without excessive damage. These two techniques have been, with minor modifications, the basis of all successful radium therapy of the uterine cervix cancers. An increasingly better clinical understanding of the application of radium therapy to the natural behavior of the cervical carcinomas, resulting in a greater individualization of treatment to adjust to varying anatomy and spread of the disease, has permitted steady increase of cure rates.[6, 7, 8, 13]

Dr. Gilbert H. Fletcher, chief, Department of Radiology, University of Texas M. D. Anderson Hospital and Tumor Institute, presented this paper for the Section on Radiology April 30, 1957, at the Texas Medical Association annual session in Dallas.

There ore three possibilities for improving the cure rote in squomous cell carcinoma of the uterine cervix: radical departure from conventionol radium therapy; injection in the parametrium of radiooctive material, such as gold, which would sterilize the lymphatic spread; and high doses to the whole pelvis with supervoltage roentgen therapy, followed by much diminished locol rodiotion.

External irradiation has been systematically added to radium therapy since the end of the 1920's. This has resulted in improvement of cure rates, mainly in stage II and stage III. Concomitantly, with the increasing number of earlier cases, absolute cure rates have shown an upward trend in most centers throughout the world. Figure 1 illustrates that trend at the Radiumhemmet.[9] Centers[2] with only 15 per cent stage I carcinoma of the cervix have absolute cure rates ranging from 40 to 50 per cent; stage I between 75 and 85 per cent; stage II, 50 to 65 per cent, and stage III, 20 to 30 per cent. Those institutions favored by a much higher percentage of early cases show some absolute cure rates of 60 per cent and even more.

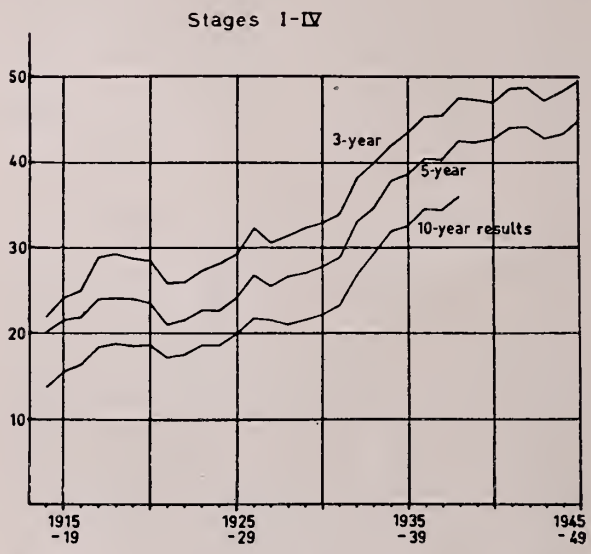

Fig. 1. Cancer of the uterine cervix, 1914-1948 (all cases traced), with 3, 5, and 10 year relative apparent recovery rates (5 year moving averages, 1914-1918, 1915-1919, and so forth). Cases treated prior to 1929 have been reclassified according to the League of Nations Classification. Cases in which the growth involved both parametria have been allotted to stage III (prior to 1937 to stage IV). Cases in which the growth has been fixed to the pelvic wall by a firm but not nodular parametrium have been allotted to stage II (prior to 1927 sometimes to stage III). [After Kottmeier, H. L.: Place of Radiation Therapy and of Surgery in Treatment of Uterine Cancer, J. Obst. & Gyn. Brit. Empire 62:737-773 (Oct.) 1955.]

In our institution, using an individualized radium and external irradiation technique (table 1), cure

TABLE 1.—*Modified Manchester Radium Technique Used at M. D. Anderson Hospital and Tumor Institute.*

15, 10, 10	3" tand.	15, 10	2" tand. 72 hr. insertion, repeated 10 da. later mg/h – 7,000 – 12,000 mg/h
15 small ovoids 15			
20 medium ovoids 20			
25 large ovoids 25			
Pt. A.	(Radium only) 7,000-7,500 γ r 17 da.		
Pt. B.	5,500 r (early cases)		54 da.
	6,000 r (late cases)		65 da.
Radium (γ r not corrected) + external beam			

rates (table 2) of better than 80 per cent have been obtained in stage I cases, and more than 60 per cent in stage II cases. Approximately 80 per cent of the group suitable for radical hysterectomy[10] (combined stage I and early stage II cases) are salvaged. This is fully as good as the results obtained by radical hysterectomy and lymphadenectomy.[10]

TABLE 2.—*Results of Treatment (5 Yr. Survival) of Squamous Cell Carcinomas of Cervix, Previously Untreated (Excluding Carcinomas of Cervical Stump), August, 1948-April, 1952.*

Patients registered		292
Patients treated		257
Patients not treated		
Stage IV, due to distant metastases	15	35
Disease limited to pelvis (9 stage III, 9 stage IV)	18	
Refused treatment (1 stage III, 1 stage IV)	2	
Grossly incomplete treatment (palliation, miscellaneous causes)		25
Patients alive at 5 years		141
Absolute cure rate (patients registered)		48.3%
Relative cure rate (patients treated)		54.5%

	Registered	Alive	Absolute Cure Rate(%)	Treated	Alive	Absolute Cure Rate(%)
Stage I	37	34	92	37	34	92
Stage II A	71	52	73	71	52	73
Stage II	123	82	67	123	82	67
Stage II B	52	30	58	52	30	58
Stage III	94	25	27	84	25	30
Stage IV	38	0	0	13	0	0
Stage I Stage IIA+	108	86	80	108	86	80

Before a discussion of the possibilities of improving results by radical surgery, isotope therapy, and supervoltage roentgen therapy, an analysis of the causes of failure will be helpful in stating the elements of the problem.

A tabulation of the causes of failure (table 3) in our material shows that in the stage I and stage II cases the disease on and around the cervix is almost always controlled. In addition, approximately 50 per cent of the patients who died had either distant metastases or intercurrent disease. From the first fact, one can infer that a different approach to the treatment of the primary disease on and around the cervix is not warranted. A different and more radical treatment of the pelvic wall disease can salvage only a fraction of those patients who died (20 per cent), as intercurrent diseases and distant metastases already seeded at the time the patient is first seen are beyond control. Systematic lymphadenectomies after completion of thorough radium and roentgen-ray therapy (in these early cases, moderate doses to the pelvic wall) can be effected with no additional risk and therefore should be investigated. In order to obtain an uncontroversial answer, one must develop two series of cases, with and without lymphadenectomy, by strict random selection of the material. This clinical experiment is now being carried out in our institution. To avoid bias, the clinician is not notified until the completion of the radiation therapy whether or not a lymphadenectomy is to be performed.

Different or more radical radiation therapy to the parametria and the pelvic walls, in that favorable group, would be unwise unless there is no appreciable risk of major or minor complications. This therefore excludes high doses to the whole pelvis and leaves only injection of intraparametrial colloidal gold as a potential means of sterilizing tumor cells in the lymphatics and the lymph nodes. This approach has been investigated since 1950 at the Washington University Medical Center,[1] and so far the results (table 5) are of interest. According to the authors, complications are at a minimum and the salvage rate seems to be greater in the group which has had intraparametrial gold, although hysterectomies and lymphadenectomies have been performed in some percentage of those

TABLE 3.—*Sites of Active Disease Prior to Death of 116 Patients (Group 1)—August, 1948-April, 1952.*

Sites* of Disease at Time of Death	No. Patients Treated	Vault Alone With D. M.	Vault Alone Without D. M.	Vault & P. D.‡ With D. M.†	Vault & P. D.‡ Without D. M.	Complications (Infection)	P. D. (Vault Free) With D. M.	P. D. (Vault Free) Without D. M.	D. M. Alone	Grossly Incomplete Rx (Started)	No Data§	Intercurrent Disease
Stage I	37						1			1		1
Stage IIA	71			1			3	4	2	1	1	3
Stage IIB	52				1	2	3	6	4		3	4
Stage IIIA	47			1 (7)	6			12	6	1	5	2
Stage IIIB	37			2 (15)	13		1	8	2		3	
Stage IV	13			1	1		1	4	4		2	
Total	257	0	0	5 (26‖)	21	2	9 (43)	34	18	3	14	10

*The evaluation of sites of active disease is mostly clinical; more rarely based on surgical or autopsy findings.

†Distant metastases: lung metastases most frequent, then abdomen (outside pelvis).

‡Pelvic disease (almost always pelvic walls) outside of vagina.

§The patients were last seen with no evidence of disease, but died later without any reliable information as to status prior to death.

‖The average doses at Pt. A are 6,600 r (r γ + r) and at Pt. B, 4,700 r (r γ + r) which are lower than the average doses for the whole group (table 5). The explanation is that, due to the distorted anatomy, only 9 of the 26 cases had had a complete conventional treatment.

cases. This is a very interesting clinical investigation which is still in progress.

The late stage II cases are not as favorable and the cause of failure—although not infrequently due to intercurrent disease or distant metastases—is often enough due to uncontrolled pelvic disease to warrant a more radical approach. Poorer results in the stage III cases with greater incidence of uncontrolled pelvic disease, either limited to the pelvic wall only or seeded throughout the entire pelvis, justify a treatment based on the assumption that disseminated pelvic disease is present when the patient is first seen. In selected cases, the surgical approach may be an extended Wertheim operation or, more often, pelvic exenterations. As yet there is no indication that the salvage rate is better than with the conventional techniques of radium and external irradiation. The use of intraparametrial colloidal gold[1] is also being investigated.

The respective contributions of the uterine and vaginal radium to various pelvic structures, with special attention to pelvic wall node areas, have been thoroughly studied at the Radiumhemmet by direct measurements for various radium patterns.[14] This study has shown that the uterine radium is the largest contributor to pelvic wall node areas as well as the lateral parametria. Changes in radium technique to the extent of using only the uterine tandem alone in more advanced cases offer the possibility of irradiating the entire pelvis more thoroughly, and have resulted (at the Radiumhemmet) in increased cure rates in all stages. This has been achieved without any appreciable increase in complications. It requires direct reading instrumentation to furnish data indispensible to the guidance of treatment.

Supervoltage roentgen therapy has been used by various writers[3, 4, 5, 11, 12, 15] without any agreement as yet as to the degree of effectiveness of this new modality of treatment. As we have in our institution a 22 million electron volt (Mev) betatron, it was decided to use high dose radiation to the whole pelvis, with additional local therapy either by radium or transvaginal cone to sterilize the local disease. Table 6 shows the allocation by stages of various treatment techniques. In order to evaluate the effectiveness of such dose levels on pelvic wall node metastases, lymphadenectomies have been performed in 100 consecutive stage III cases 3 months after the completion of the radiation treatment. This study is now completed and shows that less than 20 per cent of the pelvic wall nodes are positive for squamous cell carcinoma. This figure is much lower than one would expect in unirradiated consecutive stage III cases. Complications, of course, do occur in such radical therapy, and adjustments in dose levels both for the external irradiation and the additional local radium or transvaginal therapy, must be made. Now, to investigate the therapeutic value of lymphadenectomy after the completion of radiation therapy, the stage III cases also are taken at random.

It seems that in stage IV cases the disease is so massive that, no matter how radical the treatment, very little can be expected. Short range palliation is the best one can hope for, and radical radiation therapy may be more damaging than beneficial. It is possible that pelvic exenterations may be of value in this group of cases.

In the head and neck squamous cell carcinomas the natural course of the disease can be followed by observing separately the evolution of the primary tumor, the lymphatic involvement of the neck, and the dis-

TABLE 4.—*Rectal and Bladder Complications.*

	Series 1948-1952		Series 1952-1954	
	White and Latin American (165)	Negro (92)	White and Latin American (175)	Negro (83)
Fistulas	1 (0.6%)	5 (5.5%)	0	3 (4%)
Other complications (ulcers, significant proctitis, or cystitis)	9 (6%)	10 (11%)	6 (4%)	1 (1%)
	White and Latin American 340 patients—1 fistula (0.3%)			

TABLE 5.—*Comparison of Cases and Results, 1½ to 5½ Years.*

Stage	Combined Clinic Cases Treated by Both Methods*			Private Cases Treated by Roentgen-Ray and Radium		
	No. Treated	Incidence of Stage (%)	Alive Without Disease (%)	No. Treated	Incidence of Stage (%)	Alive Without Disease (%)
I	95	39.3	85.3	56	40.0	76.7
II	91	37.6	65.9	65	46.4	53.8
III	56	23.1	32.1	19	13.6	21.1
Total	242	100.0	65.7	140	100.00	58.5

*Includes all clinic cases treated with roentgen ray and radium and private cases treated with radiogold ± radium and surgery.

After Allen, W. M.; Sherman, A. I.; and Arneson, A. M.: Further Results Obtained in Treatment of Cancer of Cervix with Radiogold: Progress Report, Am. J. Obst. 70:786-790 (Oct.) 1955.

tant metastases. More radical and better planned therapy, either surgical or radiotherapeutic or a combination of both, has substantially improved the control of the primary disease. A similar increase in the control of the lymphatic metastases in the neck has not been achieved, and of course, no control of distant metastases already seeded at the time the patient is first seen is possible. One therefore has observed that an increasing freedom from disease locally or even above the clavicle has not been followed by a commensurate increase in survival rate in the more aggressive types of squamous cell carcinomas, such as those originating in the base of the tongue, tonsil, and pyriform sinus. However, one should not forget that not only is life somewhat prolonged, but in most cases the survival time of the patient is rendered more comfortable and the mode of death less painful. Therefore, the survival rate at 5 years does not give a true measure of benefits derived.

TABLE 6.—*Policy of Treatment Since Availability of 22 Mev Betatron.*

Stage I (51)	Radium therapy (8,000-12,000 mg/h) alone or with moderate doses to pelvic walls—
Stage II early (58)	3,000 r
Stage II late (49)	4,000 r whole pelvis (on betatron) + radium therapy (5,000 mg/h) or transvaginal (4,000 r)
Stage III early (63)	6,000 r whole pelvis (on betatron) + radium therapy (3,000 mg/h) or transvaginal (2,500-3,000 r)
Stage III late (101)	6,000 r or 7,000 r + radium therapy (tandem alone 3,000-4,000 mg/h)
Stage IV (20)	6,000-7,000 r whole pelvis (betatron)
342 Total cases	

The same applies to the squamous cell carcinomas of the uterine cervix. One sees less uncontrolled vaginal disease and also fewer—although to a smaller degree—deaths due to uncontrolled pelvic wall disease. If it can be proved that the excruciating pain associated with nerve involvement and bilateral ureteral obstructions is decreased by more radical treatment to the pelvic walls, it is a real gain, although not detectable by a better 5 year survival rate.

In summary, a review of the present status of management of the uterine cervix carcinomas shows that one has two distinct problems. In the favorable group of cases (stage I and early stage II cases) cure rates are excellent and freedom from local residual or recurrent disease is almost the rule. Therefore, any more radical attack to increase an already propitious survival rate should be thought out very conservatively and is justifiable only if no complications result. The problem is different in the more advanced cases, for which more ra
apy, alone or combined with surgery,
even if the incidence of complication is
To obtain statistically significant data, rand
of cases treated with the various modalities
essential.

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ABSTRACT OF DISCUSSION

DR. RALPH S. CLAYTON, El Paso: Dr. Fletcher, an internationally known radiotherapist, has made many significant contributions to the science of radiation therapy, especially in the treatment of carcinoma of the cervix. If his answer to the question raised in his paper had been no, there would be no point in further research in the radiation treatment of this disease. On the other hand, Dr. Fletcher has only implied that we may increase cure rates, especially in the more advanced stages. I believe that we can answer the question more positively. Furthermore, a rough estimate can be made as to how much the cure rate in each stage may ultimately be increased.

However, before making such an estimate, I would like to comment on some aspects of the data in this paper. I sense that Dr. Fletcher is fairly well satisfied with his results in stage I, and I agree that a 92 per cent cure rate is very good indeed. In early stage II lesions his cure rate drops to 73 per cent, and for late stage II the cure rate reported is 58 per cent. For the entire stage II group his cure rate is 67 per cent. The absolute cure rate in stage III of 27 per cent is comparable to that obtained in some other centers. His stage

e is zero. There are several important points to n evaluating these data.

it must be realized that, in the past 10 years, many lesions are earlier than the classical stage I cases in series with which a cure rate of 75 per cent is usually ociated. The later series include many cases discovered by xfoliative cytology with no visible lesion on the cervix. Inclusion of a fair number of these extremely early cases will raise the cure rate toward 90 per cent since these patients are easier to cure by either irradiation or surgery.

Natural variation in staging a series will affect the cure rates in all stages. For example, staging "lower" than the actual extent of the disease will lower the resulting cure rates. Staging "high" will raise the cure rates. To illustrate: staging an advanced stage I as a stage II will leave the very earliest stage I cases in that stage and thus will result in a higher percentage cure in stage I. At the same time, the inclusion of more advanced stage I material in stage II will increase the cure rate in stage II, and so on. Such a tendency to stage "high" may explain why some centers can report a 10 per cent cure rate in stage IV, while other centers report no salvage at all in this stage.

Now we must consider the matter of exclusion of patients not treated for some reason, and the computing of a "relative" cure rate. When this is done, often the cases excluded were the most nearly hopeless ones. In the series reportd here, all 15 cases with distant metastases were in stage IV. It may be possible that no stage III cases had distant metastases found after initial clinical staging. I wonder whether any of these cases with distant metastases were classified as stage IV after exploratory laparotomy revealed involvement of the aortic nodes. At any rate, all 35 cases excluded for purposes of determining relative cure rates were in stages III and IV. It would appear that only the very worst cases were stages III and IV and that less effort was made to treat these women adequately. This leaves, of course, only the most favorable groups to be reported as the basis of over-all relative cure rate. Such selection of material, whatever the explanation, unfairly biases these data.

The 1955 annual report* shows that about 95 per cent of patients presented were treated, whereas in the series reported here only 88 per cent were treated. This means that about 1 patient in 8 either was not treated or was not treated adequately. Also 108, or 42 per cent of those treated or 37 per cent of the entire series, were stage I or II A, or early cases. For these reasons, the reporting of a relative cure rate of 54.5 per cent means very little. Furthermore, reporting an absolute cure rate of 48.3 per cent means nothing because of the high proportion of early stages. The only percentages having real meaning are those by stages.

The least bias is involved in reporting absolute cure rates based on the percentage cured by stages of all patients presented for treatment. This type of approach encourages an all-out effort to treat adequately every patient because the physicians know that all cases will be included in analyzing the data.

Dr. Fletcher's mention of the trends in researches directed toward improving results in the treatment of carcinoma of the cervix is interesting. The high dosage irradiation of the entire pelvis with the betatron encountered the inevitable limitation of large volume effect without appreciably increasing cure rates. The radiogold injection of the parametria is a step toward carrying the radiation sources to the volumes of tissue involved with cancer, and nowhere else. We must learn to irradiate the entire volume involved with cancer to an adequate dose while protecting reasonably well the uninvolved tissues if we are to increase cure rates beyond present levels and at the same time keep the incidence of complications to an acceptable level.

Now, can the cure rates in this disease be improved? Yes, I think they can. Even on the basis of relatively inexact knowledge, and discounting from 100 per cent for failure due to (1) intercurrent disease, (2) distant metastases, (3) radioresistant tumors, and (4) any other reasons preventing adequate treatment, my estimates are as follows:

	Present Cure Rate (%)	Probably Can Be Increased to (%)
Stage I	65-80	85-88
Stage II	40-50	60-70
Stage III	15-25	35-50
Stage IV	0-10	30-40

Over-all, for an average sample by stages, the cure rate probably can be increased from the present 35 per cent to 55-60 per cent.

I would like to ask Dr. Fletcher if he is able to give us more information on the following:

1. What proportion of stage I cases were very early, discovered by exfoliative cytology and with little or no gross visible evidence of cancer on the cervix? [EDITOR'S NOTE: Dr. Fletcher replied that he sees perhaps 2 or 3 very early stage I cases a year discovered by exfoliative cytology, or with no gross evidence of cancer.]

2. Is clinical staging in his institution based on the usual clinical examinations, or is the stage ever changed on the basis of evidence discovered at laparotomy or during treatment? [EDITOR'S NOTE: Dr. Fletcher indicated that the M. D. Anderson Hospital and Tumor Institute abides rigidly by the staging of the international classification, which does not permit a restaging after laparotomy.]

In closing, I must compliment Dr. Fletcher for his tireless efforts and seemingly unlimited energies in research in therapeutic radiology. All of us who are particularly interested in the problem of carcinoma of the cervix follow his work with intense interest and admiration.

**Annual Report on Results of Treatment in Carcinoma of Uterus, Stockholm, 1955.*

Disease and Therapeutic Index Issues First Report

The National Disease and Therapeutic Index, a unique research project designed to provide a continuous flow of reliable, basic facts on medical practice in the United States, has issued its first report, a preliminary analysis of neoplasms as seen by the practicing physician. About 50 Houston physicians have cooperated in this work.

Reports on more than 91,000 patients, collected from a representative sample of physicians in private practice in the United States in 1956, provide a descriptive profile of neoplasms as seen by physicians. Neoplasms were reported for 2.8 per cent of all patients seen. Fifty-five per cent were malignant and 35 per cent were benign.

Forty-two per cent were neoplasms of the genito-urinary system, but less than half of these were malignant. More than 80 per cent of neoplasms of the buccal cavity, pharynx, digestive, and respiratory systems were malignant. About one-fourth of all neoplasm patients reported underwent surgery, and 45 per cent were treated with drugs.

General practitioners, internists, and surgeons reported almost three-fourths of all neoplasms, but a considerably larger proportion of the practice of dermatologists and urologists was concerned with neoplasms than in other specialties.

The Hard Prostate

HARRY GRABSTALD, M.D.

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IN OUR ATTEMPT to stress a teaching point, the dictum "every hard prostate is carcinoma until proved otherwise" has been emphasized. This is in no manner different from clinical concepts concerning breast, cervical, or other tumors, and is probably correct. Suspicious prostatic nodules, however, differ in one important and very practical aspect; namely, therapy is often carried out on the basis of clinical impression, which, unfortunately, is merely a reflection of our tactile sense and is most certainly not an accurate approach. No surgeon would consider doing radical breast surgery with node dissection without a positive biopsy. Nor would the gynecologist consider

Dr. Harry Grabstald, member of the Baylar University College af Medicine staff in Houstan and farmerly chief af urology, Veterans Administratian Haspitals, Haustan and Cleveland, Ohio, presented this paper for the Ninth District Medical Saciety, April 3, 1957, at Navasata.

Biopsy is important in every case of a hard prostate, for a variety of lesions may exist with this sign. An effort should be made not only to diagnose and cure early prostatic carcinoma through definitive treatment, but also to avoid orchiectomy in instances of benign prostatic disease.

extensive pelvic surgery because a cervix "looked suspicious" or "felt hard." Yet, castration and estrogenic hormone therapy is often carried out for what is described by the examining physician as "typical stony hard prostatic carcinoma" based on rectal examination, which, upon biopsy, is proved not to be carcinoma. Orchiectomy in the young middle-aged male is tragic enough when there is proved carcinoma. It is indeed a serious error when this procedure is performed for benign prostatic disease. Goldstein and Weinberg[1] have reported 1 patient who, in addition to being subjected to orchiectomy for a suspicious prostate, also had bilateral adrenalectomy. At autopsy this particular patient had a bronchogenic carcinoma with bone metastases.

Over a period of five years, prostatic biopsy has been performed in every patient with a hard prostate regardless of age, phosphatase levels, or bone lesions. Findings concerning patient selection and material, biopsy techniques and problems have [illegible] elsewhere.[4, 5, 6]

It is the purpose of this paper to report t[illegible] tatic biopsy findings, to classify the proved pa[illegible] entities responsible for the suspicious hard pr[illegible] and to outline a basic clinical approach to the m[illegible] agement of these patients.

DIAGNOSTIC METHODS

Given a patient with a hard prostate, obviously carcinoma must be eliminated as a possibility before any thought is given to treatment. Several facets of this problem other than biopsy should be discussed:

1. Too much reliance should not be placed on measurement of the acid and alkaline phosphatases. It cannot be stressed too strongly that normal phosphatases are meaningless in that normal levels most assuredly do not rule out the possibility of carcinoma.

2. An elevated acid phosphatase level does not imply inoperability of the lesion, nor does it even prove the presence of prostatic carcinoma. Blood may have been drawn after the prostate had been thoroughly palpated. Other lesions, as prostatic infarcts or tumors elsewhere, on rare occasions may be associated with elevation of the acid phosphatase. Recent techniques to measure specific prostatic phosphatase prove very promising. The test is not available in most laboratories at present.

3. Elevation of alkaline phosphatase does not prove prostatic carcinoma. Hyperparathyroidism, multiple fractures, severe liver disease, and Paget's disease among other entities may be associated with extremely high levels of alkaline phosphatase.

4. The presence of a stony hard prostate, elevation of alkaline phosphatase, and the presence of osteoblastic bone lesions do not prove prostatic carcinoma. Paget's disease and a benign prostate may coexist in this instance.

5. Finally, it is well to emphasize the error of "watching" these lesions to see whether or not they soften on stilbestrol. Whether or not a prostate feels soft after stilbestrol therapy is of no practical importance. Prostatitis, for example, may soften with time, and should this phenomenon be observed after stilbestrol, one might conclude erroneously that the patient has carcinoma.

There are several diagnostic points which bear emphasis with regard to biopsy techniques per se:

1. The method of choice for the diagnosis and management of early carcinoma of the prostate is perineal exposure and frozen section with radical perineal prostatectomy, if positive. This obviously presupposes a urologist trained to do perineal surgery and a pathologist agreeable and capable of doing frozen sections on prostatic tissue. Only rarely should the frozen section technique present a challenge to

logist. In these instances the incision may be closed and the surgeon may wait for the permanent sections and proceed without difficulty in two or three days. The wound at this stage is very easily reopened.

2. Prostatic smear with cytologic study of the expressate is to be condemned. It might be compared with breast massage and examination of the secretion in the diagnosis of breast carcinoma.

3. Perineal punch biopsy is a good procedure and is of value when positive. It is often difficult, however, to hit a small isolated nodule. For example, I have repeated a biopsy via the transrectal route in 7 patients in whom only benign tissue was obtained on punch biopsy. In another patient adenocarcinoma was found on perineal punch biopsy. In 3 of the 7 in whom benign tissue was found on perineal punch biopsy, I have found carcinoma on transrectal biopsy. In the 1 patient in whom adenocarcinoma was found, a second and separate squamous cell carcinoma was discovered. If the perineal punch biopsy is positive, curative surgery can be performed either via the radical retropubic route or the radical perineal technique. Both are accepted procedures although the latter is an older, more established operation.

4. The transrectal route, except under certain rare circumstances, should be reserved for incurable tumors, where only tissue proof is mandatory preliminary to castration or institution of estrogenic hormone therapy. It should not be used preliminary to radical perineal prostatectomy as it may offer considerable added operative difficulty. Large fragments, adequate for easy diagnosis, may be obtained by this method. In these patients much smaller perineal punch fragments may reveal only benign tissue.

5. Insofar as the transurethral resection is concerned, only the expert resectionist can consistently hit the small isolated posterior lamellar nodule by the transurethral route. Again, should the biopsy be positive via this route, radical retropubic or perineal prostato-vesiculectomy may be performed. It should be remembered that, as with the perineal punch biopsy, if the transurethral fragments reveal only benign tissue, this certainly does not rule out the possibility of carcinoma.

PATHOLOGY

An impressive array of miscellaneous benign lesions has been noted among prostatic biopsies (table 1).

Entities in table 1 are essentially an enumeration of the more common diseases of the prostate. Yet, every listed disease may be manifested clinically as a hard prostate, often without subjective findings. Although prostatitis, abscesses, and sarcomas of the prostate are often soft and boggy, they also may be hard. Except for lymphomas and metastatic tumors, every other entity in the table has been seen and proved by biopsy in this series.

TABLE 1.—*Pathology of the Hard Prostate.*

- I. Benign
  - A. Inflammatory
    - 1. Acute prostatitis
    - 2. Chronic prostatitis
      - a. Nonspecific
      - b. Specific
        - (1) Tuberculosis
        - (2) Nontuberculous granulomatous prostatitis
      - c. Abscess
  - B. Calculi
    - 1. Calcinosis
    - 2. Corpora amylacea
  - C. Vascular
    - 1. Prostatic infarcts
    - 2. Periprostatic venous thrombosis
  - D. Hormonal
    - 1. Squamous metaplasia
- II. Malignant
  - A. Adenocarcinoma
  - B. Squamous cell carcinoma
  - C. Sarcoma
  - D. Lymphomas, Hodgkin's disease
  - E. Metastatic tumors

CLINICAL MANAGEMENT

Once one of these benign lesions as a cause for the clinically hard prostate is eliminated, therapy obviously depends upon whether or not the lesion is curable, not operable. There is an important difference between these two terms insofar as prostatic carcinoma is concerned. For example, a patient with proved prostatic carcinoma, bone metastases, elevated phosphatase levels, and local tumor extension is not curable. If, however, he cannot void and is in good physical condition, he most certainly is operable in terms of one of the palliative procedures such as transurethral resection or suprapubic electroresection with implantation of radioactive gold. The latter two procedures, however, are not curable and should not be considered for the small isolated nodule felt in the posterior lobe of the prostate. It is well to emphasize again that perineal biopsy, frozen section and radical perineal prostatectomy remain the procedure of choice for the latter lesion as transurethral surgery, castration, and stilbestrol do not, nor was this combination ever intended, except by accident, to cure carcinoma.

Early Curable Carcinoma of Prostate.—Unfortunately, a defeatist attitude has existed regarding the supposedly low incidence of early and curable prostatic carcinoma. This view has been promulgated by the resectionists not trained in perineal surgery. It has been stated by this group that the incidence of

early curable carcinoma is so low, approximately 5 per cent, as to be statistically an unimportant lesion. In those institutions where the operability rate is only 5 per cent, very likely the same rate will be found for rectal carcinoma in that both lesions are being overlooked and both, being similar in character, are being noted only when obstructive or metastatic symptoms develop. A more accurate appraisal of the true incidence of curable prostatic carcinoma may be seen from the statistics of Jewett[7, 8] at Johns Hopkins Hospital where 19 per cent were suitable for radical surgery. In the Army, Kimbrough[9] has found an operable rate of more than 50 per cent because of the policy of routine rectal examinations in men over 40. In the present series, 33 per cent were found to be diagnosed early enough to justify radical prostatectomy.

Prostatic carcinoma is also comparable to rectal carcinoma in one other respect. Just as both are diagnosed on routine examination and early lesions are discovered in the absence of symptoms, so both have a similarly high curability rate when discovered at this stage.

Incurable Prostatic Carcinoma.—Therapy in the patient with an incurable prostatic carcinoma depends upon two factors: (1) presence or absence of pain and (2) whether or not urinary obstructive symptoms are present.

Since the monumental work of Huggins and his associates it has been well demonstrated that suppression of androgens by castration and estrogenic hormone therapy quite often, and occasionally dramatically, relieves the symptoms associated with pain due to metastases. Castration and estrogenic hormones have never cured a patient with carcinoma of the prostate.

The patient with incurable carcinoma of the prostate does not require a transurethral resection unless he has difficulty in voiding, has severe obstructive symptoms, carries significant residual urine, and so forth. Transurethral resection is not a curative procedure with or without castration and hormones. It is true that on very rare occasions transurethral resection results in a diagnosis of occult carcinoma in one or two of the submitted fragments. This should be interpreted merely as a means of biopsy and should be followed by radical prostatectomy.

Recently the use of radioactive elements has come into prominence in the management of incurable prostatic carcinoma. Results have been dramatic in some cases, and perhaps no better than transurethral resection in others. The technique is promising and should be used in selective cases. Like the transurethral resection and castration, the procedure is not intended to cure carcinoma of the prostate. It is rather like the transurethral resection, a palliative procedure for those patients who cannot void. Again, it might be well to compare the inoperable prostatic carcinoma with the inoperable rectal carcinoma. While colostomy is not the treatment for early carcinoma of the rectum, neither is cystostomy, even with gold, the treatment for early prostatic carcinoma.

SUMMARY AND CONCLUSIONS

The purpose of this paper has been to stress the importance of biopsy and not to prove that lesions other than carcinoma may feel hard. Although I have found, as described in previous publications, that 59 per cent of prostates were benign, and I have quoted Jewett, who has reported 46 per cent in his series from Johns Hopkins Hospital were benign, it is even more important to remember that 41 and 54 per cent respectively in the latter two series were malignant. Although it is our prime concern to diagnose and cure early prostatic carcinoma, it is clearly our responsibility, if for no other than medicolegal reasons, to prevent needless removal of testes. Careful biopsy gives evidence that every hard prostate is not carcinoma. Several patients referred in my series had had orchiectomy done elsewhere, and in several instances I found only benign prostatic disease.

In summary, every hard prostate may or may not be carcinoma. Neither curative radical surgery, as perineal prostatectomy, nor palliative castration and estrogenic therapy should be carried out without microscopic proof of the disease.

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Let us never reduce the quality of service we render to our patients, and never lose the personal touch in medicine. Where there is any opportunity to improve upon our medical care, let us seize it and show our abilities to do an outstanding job. Satisfied patient-customers will give us deserving support when we need it.—Dr. Dwight H. Murray, Presidential Address before American Medical Association House of Delegates, Seattle, Nov. 27, 1956.

Amebiasis: Its Pseudosurgical Appearance

J. WALKER DAVIS, M. D.

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PRIOR to World War II, in this country amebiasis was considered primarily a problem of the southern states. Unfortunately, no longer is this disease limited to a geographic area. Despite vigorous and apparently successful treatment, amebiasis is characterized by frequent relapses and a marked tendency to persist for many years after the original infection. Consequently, with the release of military personnel who have harbored this disease, any physician may be confronted with its various manifestations.

Dr. J. Wolker Dovis, San Antonio proctologist, presented this paper for the Texos Society of Gostroenterologists ond Proctologists April 28, 1957, in Dollos.

Chronic and recurrent forms of amebiasis may be confused with carcinoma and other lesions of the rectum. Although this confusing condition is unusual (only slightly more than 40 such cases in the literature), it is extremely important that distinction be made as treatment varies greatly. Two cases of hyperplastic or granulomatous reaction of the rectum to amebiasis, which simulates neoplastic disease, are described.

It is essential that one fully realize the clinical picture at the time of original infection may not be that of a classical amebic dysentery. This is particularly true in its recurrent and chronic forms. On clinical examination, the chronic and recurrent forms may be readily confused with carcinoma. Admittedly, this confusing condition is unusual. Hawe reported only 5 such cases out of 1,000 British military personnel who were hospitalized for amebiasis in the Far East. There are only slightly more than 40 such cases reported. However, such reports are becoming more frequent as there is greater familiarity with this clinical picture.

The confusing lesions are usually located in the rectal ampulla and the rectosigmoid. They may be either the large ulcerative form or proliferating and hyperplastic with a granulomatous or less well differentiated mass of chronic inflammatory tissue protruding into the bowel lumen and resembling the submucosal extension of a carcinoma. A distinguishing clinical feature between these lesions and carcinoma is the lack of induration. The proliferative lesion has a very limited tendency towards ulceration and bleeding, in contrast to carcinoma. In the event one is confronted by such an amebic lesion and is so fortunate as to find an associated diagnostic amebic ulcerative proctosigmoiditis, he of course will be guarded in his diagnosis. In the absence of ulcers pathognomonic of amebiasis, one's only protection against ill advised surgery is biopsy.

It is of the greatest importance that these amebic lesions not be confused with carcinoma. The treatment of amebiasis, excepting certain abscesses, is strictly medical. Surgical procedures such as colostomy, anterior resection, or abdominoperineal resection, performed because of a mistaken diagnosis of carcinoma, are extremely hazardous. Surgery of this nature is not necessary and has no worth-while effect on the amebic infection. Actually, such surgery exposes the patient to the hazards of liver abscess and secondary pulmonary involvement. Even local spread from surgery may prove fatal despite full use of amebicides.

Two case reports are presented.

CASE REPORTS

CASE 1.—A 40 year old white man was referred for hemorrhoidectomy. He complained of frequent traces of blood at stool over a period of 12 years. During the week past there had been dripping of blood following bowel movement. For the preceding four years there had been protrusion at stool which now required manual replacement. Ordinarily there was a single morning stool, but four months previously there had been some temporary looseness. He had been treated with penicillin, the avoidance of coffee, and other minor dietary changes. Further questioning obtained a vague history of diarrhea some 10 years previously, but apparently this had not required medical attention. A review of systems disclosed only some minor discomfort in the lower left quadrant. His past history was negative except for the more common childhood diseases. His only surgical procedure was the removal of tonsils and adenoids in childhood.

Findings on physical examination showed a well developed and well nourished white man approximately 40 years of age. Blood pressure was 132/74, pulse rate 78 per minute, temperature 98.4 F., and respiration 16 per minute. Proctologic examination to a point 25 cc. above the anus disclosed: (1) large prolapsing internal hemorrhoids with associated external hemorrhoids; (2) one rather large hypertrophied anal papilla; (3) a fairly firm mass 8 cm. above the anus which involved the posterior one-half of the rectum and which had on its surface several scattered small mucosal ulcerations; and (4) multiple, irregular, dirty, discrete mucosal ulcers limited to the rectum.

The clinical impression was: (1) papillitis; (2) hemorrhoids, internal and external; (3) amebic proctitis; (4)

amebic granuloma; and (5) carcinoma of the rectum, doubtful.

A biopsy specimen of the rectal mass was taken at the time of examination, and the patient was hospitalized for further study. Hospital admission laboratory studies revealed the urine to have a specific gravity of 1.020, and except for 2 to 4 white blood cells per high powered field, it was negative. Serology was negative. There were 4,700,000 red blood cells per cubic centimeter, with hemoglobin 12.4 Gm. per 100 cc. White blood count was 11,000, with a differential count of neutrophils 62 per cent, basophils 2 per cent, eosinophils 6 per cent, lymphocytes 25 per cent, monocytes 3 per cent, and metamyelocytes 2 per cent. Cysts and trophozoites of Endamoeba histolytica were found in the first stool examination. Roentgen-ray studies of the bowel were negative.

The pathologic report was as follows: Grossly, the specimen consisted of three irregular ovoid pieces of tissue, the largest of which measured 9 mm. in diameter. On section it was firm and grayish white. Microscopically, sections of the tissue showed most of it to be covered by mucosa of the large bowel type. There was increased infiltration by chronic inflammatory cells which appeared to spread the glands apart. This chronic inflammatory cell infiltration extended into the submucosa. In the mucosa, but particularly in the submucosa, were some large unicellular structures with relatively small round nuclei. Some of these appeared to contain phagocytized cellular debris and vacuolated granular eosinophilic cytoplasm. These structures were trophozoites of Endamoeba histolytica. The trophozoites were surrounded by dense collections of chronic inflammatory cells. The diagnosis was amebic proctitis.

Treatment consisted of emetine, 1 grain hypodermically each day for six days with simultaneous oral administration of 30 grains of Vioform daily for 10 days. On proctologic examination immediately following this 10 day period of treatment, the granulomatous mass had almost completely cleared and only 4 small, clean rectal ulcers remained. Vioform was continued for an additional 10 day period. At that latter time stool examination was negative for ameba, and on proctologic examination there was complete healing of the rectum without scarring. Stool examination for ameba 6 and 10 weeks following termination of treatment remained negative.

CASE 2.—A 39 year old white man, who was referred for diagnosis, had developed diarrhea six to eight months previously. At the onset of diarrhea, there were four to five very loose stools each day which contained slight traces of blood. For an unrelated complaint he had been placed on several antibiotics, and when he sought medical attention for his diarrhea, stools were reported to be negative for ameba but to contain Monilia. Supportive and symptomatic treatment resulted in the production of a single daily stool described as being somewhat mushy. However, he retained some tenesmus though passing only a small amount of pus with traces of blood. Occasional bleeding at stool with associated protrusion antedated his present complaint by some three years. For an indefinite time, there had been episodes of burning and anal pain following bowel movement. A review of this patient's system was essentially negative except for a 5 pound weight loss during the previous six months. His past history consisted of the more common childhood diseases and smallpox. He was uncertain as to whether he may have had typhoid fever as a child. Surgery consisted of the removal of tonsils and adenoids in childhood, as well as surgical intervention for an intervertebral disk three years previously.

Findings on physical examination showed a well developed, well nourished, ambulatory white man approximately 39 years of age. Blood pressure was 130/76, pulse rate 84 per minute, respiration 18 per minute, and temperature 99 F. Aside from a posterior midline scar over the lumbar area, there were no significant findings. Proctologic examination to a point 15 cm. above the anus, disclosed: (1) small external hemorrhoids; (2) large internal hemorrhoids which tended to prolapse; (3) a rather deep posterior midline fissure; (4) approximately 5 cm. above the anus, an irregular, annular, somewhat pale mass projecting into the lumen of the rectum for a distance of 2 cm., with a thickness varying from 5 mm. to 12 mm.; and (5) in the midrectum just to the right of the anterior midline, four areas of petechial hemorrhage suggestive of an amebic proctitis.

Removal of a biopsy specimen was accomplished at the time of examination.

The clinical impression was: (1) anal fissure; (2) hemorrhoids, internal and external; (3) amebiasis; (4) amebic granuloma; and (5) carcinoma of the rectum, doubtful.

The pathologic report was as follows: Grossly there were no unusual findings. Microscopically, sections of the tissue showed it to be covered by rectal mucosa apparently intact except for some small defects in the superficial epithelium which were artifacts. In most portions of the biopsy material, the mucosal glands were spread apart by an inflammatory exudate. This was composed chiefly of lymphocytes and plasma cells with smaller numbers of histiocytes, neutrophils, and eosinophils. There were also dense aggregates of these chronic inflammatory cells in the submucosa. Numerous small thin-walled blood vessels were present in the mucosa and submucosa. No structures resembling ameba were seen in these sections. There was no evidence of malignancy or specific inflammation. The diagnosis was chronic proctitis.

The patient was returned to the referring physician with the recommendation that he have additional stool studies for amebiasis, and in the event these were negative for ameba that roentgenograms be made of the bowel. Repeated stool examinations were reportedly negative for ameba, and roentgen-ray study revealed only some spasm in the rectosigmoid. Fortunately, it was possible, on direct smear, to demonstrate Endamoeba histolytica thereby confirming the clinical impression.

Upon confirming the diagnosis of amebiasis, Terramycin was prescribed by the attending physician for a 10 day period with little if any symptomatic improvement. Immediately following Terramycin therapy, reexamination to a point 25 cm. above the anus revealed scattered mucosal ulcerations, with negligible reduction in size of the rectal mass. The referring physician then elected to withhold further treatment for a seven day interval. Reexamination at the end of this period showed no appreciable change from the previous observation.

At that time a daily injection of emetine, 1 grain, with simultaneous administration of Milibis was instituted. This treatment was carried out for seven consecutive days. Fourteen days following this, the patient was symptom free, and on sigmoidoscopy there was complete healing of all lesions without scarring.

Since this patient resided in Mexico, it was not practical for him to be held for further observation. Vioform was prescribed for an additional 14 day period. Even though this patient has not been seen again, inquiry by mail some 18 months later indicated no recurrence of symptoms.

SUMMARY

Two cases of hyperplastic or granulomatous reaction of the rectum to amebiasis which simulated neo-

plastic disease have been described. The likelihood of encountering these lesions and the necessity of distinguishing them from other lesions of the rectum are emphasized. The hazards of ill advised surgery have been enumerated. Treatment and results are reported.

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Bosses Don't Die Young

The current belief that promotion can kill you is being challenged. The American Management Association recently sponsored a health survey by industrial physicians, and no evidence was found that executives are in any worse state of health than any other employees. The National Office of Vital Statistics corroborates this and reports that managerial, technical, and administrative groups have lower than average mortality rates, and life insurance companies sell policies to men in executive occupations at the lowest premium rates.

Many companies have instigated periodic health examinations for their employees, both executive and rank and file. Company size seems to have little influence on the usual requirement for a health examination before being hired, but large companies are more apt to offer regular examinations to personnel already employed.

In a new study by Life Extension Examiners covering 5,000 executives of all ages from 30 companies, 58.9 per cent were considered to be in good shape, and 41.9 per cent were reported to be in substandard condition.

Infectious Encephalitis In West Texas -- Report of An Epidemic

C. A. PIGFORD, M. D.

Lubbock, Texas

ALTHOUGH there has not yet appeared a satisfactory classification of the viral encephalitides, one descriptive term that is commonly applied to eastern equine, western equine, and St. Louis encephalitis is "arthropod-borne." This hyphenated adjective is a result of virus isolation from various insects including mosquitoes, ticks, and mites, and from laboratory experiments in which the virus has been passed from animal to animal via the bite of a mosquito. Numerous investigators have pointed out, however, that no satisfactory trials have been made with humans.[1, 3] That the mosquito or other arthropods are the only vectors involved in the acquisition of the disease by man is yet a presumption, and the vector

Dr. C. A. Pigford, director, Lubbock City-County Health Unit, presented this paper for the Section on Public Health April 30, 1957, at the Texas Medical Association annual session in Dallas.

More than 300 cases of arthropod-borne viral encephalitis occurred in 1956 in eight counties on the irrigated high plains of Northwest Texas. Although the western equine type has been found to be endemic in this area, the outbreak was predominantly of St. Louis encephalitis. Comparison indicates the rates of attacks were four to five times less in a locality where adequate mosquito control was in effect.

This report was prepared with the assistance of the Bureau of Laboratories, the Bureau of Sanitary Engineering, and the Division of Communicable Disease Control in the Texas State Department of Health.

relationship of these insects in human disease has not yet been proved.

Nevertheless circumstantial evidence has been strong enough to suggest the term "arthropod-borne" and to indicate that our best approach to control should be directed at the mosquito.[3] Here, too, at least one puzzling situation exists. In control efforts initiated during epidemics it has been found that the subsidence of the epidemic generally does not coincide with the reduction in the mosquito population.

In the United States eastern equine, western equine, and St. Louis encephalitis are widely distributed. Eastern equine, however, is confined to the Atlantic and Gulf Coast states; western equine, to states west of the Mississippi River; and St. Louis encephalitis, to those areas west of the Mississippi and some states in the central area.

In the 19 year period 1938-1956, there were 1,540 cases of infectious encephalitis reported to the Texas State Department of Health. Of this total 964 have been reported in the past 5 years. The 2 years of highest incidence were 1954 and 1956 when epidemics were centered in the Rio Grande Valley and in the High Plains areas, respectively (table 1).

TABLE 1.—*Reported Incidence of Infectious Encephalitis in Texas (1945-1956).*

Year	Cases	Year	Cases
1945	16	1951	63
1946	33	1952	82
1947	3	1953	104
1948	3	1954	336
1949	48	1955	96
1950	59	1956	346

Forty-two cases of infectious encephalitis were reported in Texas during the first 6 months of 1956. During the last 6 months in 1956 there were 304 cases reported. The vast majority of all cases occurred in the High Plains area with the heaviest concentration in the Hale-Lubbock Counties areas. Hale County reported 77 cases for the largest total for a single county. However, Swisher County with 21 cases had the highest attack rate (2.6 per 1,000 population).

TABLE 2.—*Reported Infectious Encephalitis in Texas in 1956—Attack Rates Per 1,000 Population (10 Counties with High Attack Rates).*

County	Reported Cases	Estimated 1956 Population	Attack Rate Per 1,000 Population
Swisher	21	9,700	2.16
Hale	77	37,660	2.04
Briscoe	6	3,650	1.64
Deaf Smith	15	14,471	1.04
Floyd	13	12,500	1.04
Lamb	20	23,450	0.85
Bailey	5	8,600	0.58
Castro	4	7,825	0.51
Lubbock	68	153,483	0.44
Hutchinson	13	36,400	0.36

Table 2 shows the attack rates for the counties reporting the greatest incidence.

Of the 275 cases occurring in Northwest Texas 262 were in counties lying wholly or partly in the High Plains. This area, consisting of approximately 30,000 square miles, lies at an elevation of from 3,000 to 4,000 feet. The surface, which appears to be nearly flat, has numerous, natural, undrained circular depressions varying in depth from 10 to 20 feet and in size from 5 to 2,000 acres. These are called playas and become small lakes during rainy seasons. Average rainfall in this area varies from 15 to 21 inches a year. Significant rains fell in the area on June 10, July 1, and August 15, 1956.

Agriculture provides the principal basis for the economy in this section of Texas with large crops of cotton, alfalfa, grain sorghum, and vegetables grown on fertile lands irrigated by means of many deep water wells. Surplus run-off water frequently fills the adjacent playas.

In detail studies conducted in 1954 Harmston and his co-workers established that three-fourths of the mosquito production on the High Plains occurred in the playas lakes.[2] Irrigation waste was the chief source of water. In an analysis of the composition of adult insects and larvae, Culex tarsalis was found to be the most abundant species. Harmston further reported western equine virus isolation from four pools of mosquitoes collected in Hale and Lubbock Counties.[2] It has been determined by studies now under way that mosquitoes breed prolifically from February through October in Lubbock County.

TABLE 3.—*Reported Infectious Encephalitis in Texas by Week of Onset (High Plains), from July 1 to December 29, 1956.*

Week Ending	Reported Cases
July 14, 1956	0
July 21	2
July 28	1
Aug. 4	6
Aug. 11	13
Aug. 18	21
Aug. 25	24
Sept. 1	44
Sept. 8	32
Sept. 15	14
Sept. 22	45
Sept. 29	12
Oct. 6	31
Oct. 13 to Dec. 29	17

The 1956 epidemic had its onset during the third week in July, rose to a peak in September, and tapered off gradually during October and November (table 3).

Age distribution studies were obtained on 266 cases. The results are summarized in table 4. These data indicate the greatest number of cases are in the 0-9 year age group with 27.4 per cent of the cases

occurring there. However, 24.3 per cent of all cases occurred in persons more than 50 years of age. Approximately 38.5 per cent of the population in Texas is in the 0-19 year age group whereas 18.7 per cent of the population is over 50 years of age.

At least 15 deaths during 1956 were attributed to this disease. Ten of these occurred in the High Plains area. Deaths were in the age groups under 1 year and over 50 years.

TABLE 4.—*Age Distribution of 266 Reported Infectious Encephalitis Cases in Texas in 1956.*

Age	No. Cases	% Total Cases
0-12 months (19 cases)		
1-9 years (54 cases)	73	27.4
10-19 years	35	13.2
20-29 years	37	13.9
30-39 years	34	12.9
40-49 years	22	8.3
50-59 years	31	11.6
60-69 years	20	7.5
70-79 years	10	3.7
80-89 years	4	1.5
Total	266	100.0

There were 11.8 per cent of the cases in persons of Latin-American extraction, 0.85 per cent in the Negro population, and 87.3 per cent among the white population. Approximately 94 per cent of the population is white, 5 per cent Latin-American, and 1 per cent Negro. This seemingly would indicate a higher attack rate among the Latin-American population. However, the seasonal influx of farm laborers may have raised the actual Latin-American population above the estimated 5 per cent of the total population.

The percentage of male patients was 56.6, and 43.4 per cent were female.

Tabulations indicate a majority of the patients either lived in a rural area or had prolonged exposure in rural areas. History of exposure to mosquitoes, and frequent mosquito bites was the rule rather than the exception.

Clinical symptoms in the suspected cases varied from mild illnesses consisting of fever and headache to severe central nervous system manifestations and death. A majority of the patients had severe headache and fever. Onset was usually abrupt although several of the group gave histories of general malaise and moderate headache for several days prior to onset of fever and headache. Stiff neck, vomiting, generalized muscular pain, and drowsiness were all prominent symptoms. Stupor and convulsions were encountered in a few cases. A spastic type of paralysis was present in at least 2 of the more severely ill patients. Disorientation and tremors of varying degree were found frequently. Fever usually lasted 5 to 6 days and fell by lysis. Temperatures frequently reached 104 to 105 F. at the maximum point.

The total cell count in the spinal fluid was usually elevated, but with very few counts above 300 cells per cubic centimeter. Most of the spinal fluid counts showed a lymphocytosis. The protein level was usually elevated and sugar was normal. The peripheral blood often showed a moderate leukocytosis, varying from 9,000 to 12,000 white blood cells per cubic centimeter. The differential count was essentially normal.

ETIOLOGY

Blood specimens were tested by means of the complement fixation test in approximately 180 suspected encephalitis cases from a 23 county area of West Texas. Eighty-five were paired specimens and 95 were single specimens. Thirty-five of the paired specimens reacted with a four-fold increase in titer for St. Louis encephalitis. Ten of the paired specimens reacted with a four-fold increase in titer to western equine encephalitis. In addition, 61 specimens reacted to the St. Louis antigen but either were single specimens or if paired did not show a four-fold rise in titer. Sixteen specimens reacted to the western equine antigen, but either were single specimens or if paired did not show a four-fold rise in titer. Several serums reacted to both St. Louis and western equine encephalitides.

On recognition of the increased incidence of encephalitis on the High Plains, officials of the area requested assistance from the State Department of Health. An epidemiologic team from the department made a preliminary survey of the situation on August 30, 1956, and recommended emergency mosquito control measures (no mosquito control operations were under way anywhere in the area except in the city of Lubbock). With the assistance of the United States Public Health Service, the use of adulticides and larvicides on mosquito habitats was begun September 10, 1956, in the populous centers of eight counties with the highest incidence of encephalitis. Principal targets were accumulated impoundages in playa lakes, accumulated water in roadside ditches, sewage disposal plants, oxidation ponds, irrigation farms, and private cesspools. The chemicals used were DDT as a liquid larvicide and BHC dust as an adulticide applied by hand sprays and Buffalo turbines. Operations continued for 30 days and were discontinued on manifest subsidence of the epidemic.

A mosquito control program conducted by the Lubbock City-County Health Unit had been under way since January, 1956. Efforts were being directed principally at breeding in playas in and around the city. Total control of mosquitoes had been obtained in these potential sources by the application in March,

1956, of ½ pound of Dieldrin per acre to the dry beds of the playas. The average number of mosquitoes per light trap night at five stations in Lubbock never exceeded six during the year 1956.

It is interesting to note that in five adjacent counties (Swisher, Hale, Floyd, Lamb, Lubbock) with extensive irrigated farmlands the attack rate of the disease was lowest in Lubbock County (table 2). Furthermore, in the area of Lubbock County outside the control limits of the city of Lubbock the attack was .80 per 1,000 whereas the attack rate within the control limits was .37 per 1,000.

SUMMARY

A large outbreak of "arthropod-borne" viral encephalitis occurred in the High Plains area of West Texas during the summer of 1956. The majority of these cases were of the St. Louis type although a number of western equine cases were encountered. More cases of this disease have been reported in Texas in the past 5 years than in the previous 14.

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Fungus Studies At a Tuberculosis Sanatorium

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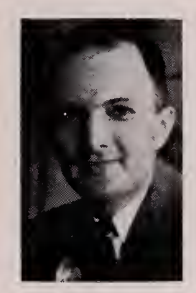
A RATHER extensive amount of information has been published concerning the etiology of "coin lesions" of the lung.[1, 2, 3, 5, 7, 9] We find much less written about the so-called "classical" cases of pulmonary tuberculosis and the exact etiology of these latter lesions.

The present series represents a study of the "classical" type. All of these patients were admitted to McKnight State Sanatorium with a diagnosis of pulmonary tuberculosis. As will be shown later, less than 50 per cent of the cases yielded a positive culture for Mycobacterium tuberculosis. Should these cases be considered tuberculosis based on the diagnosis of the referring physician only?

Zimmerman[10] has emphasized the frequency of Histoplasma capsulatum as the cause of pulmonary granulomas. More than one-half of his cases (35) were due to this agent. However, the geographic location is of great importance in any study of fungus disease, and Coccidioides immitis ranked first in West Texas.



Dr. Lloyd R. Hershberger presented this paper before the Texas Medical Association's Section on Clinical Pathology April 29, 1957, during the annual session in Dallas.

The accuracy of diagnosis in certain cases is a real problem in admitting patients to a tuberculosis sanatorium. Three to 4 per cent of cases diagnosed as tuberculosis actually are fungus-diseases. In a series of 51 cases, sputum culture studies showed that 39 had no acid-fast organisms, and 2 were proved to be coccidioidal in etiology. Of 60 surgical cases, study of specimens proved 2 cases to be coccidioidal.

At this time let me add that it is of importance to encourage pathologists in our state to use the available techniques for the demonstration of etiologic agents, whether it is Mycobacterium tuberculosis or pathogenic fungi. The "cold" stain is preferred in our experience for the demonstration of acid fast bacilli, and the use of special stains as described by Lillie,[6] McManus,[8] and Gridley[4] are of great value in tissue studies for fungi.

On October 1, 1956, a study was undertaken at McKnight State Sanatorium concerning admissions that were diagnostic problems. This study continued approximately 6 months. During this same period of time, other questionable medical cases and all surgical specimens were studied for possible fungus disease. Both culture and special staining procedures were used.

On admission we reviewed the new cases carefully concerning roentgen-ray diagnoses made outside the sanatorium and also information obtained from sputum studies on these cases before admission. Skin tests were done in questionable cases for histoplasmosis, coccidioidomycosis, and tuberculosis. If a patient showed a positive skin test for either of the fungi, sputum studies then were made for these organisms on Sabouraud's medium. In addition to this,

serologic studies were made on a number of these same cases to determine the presence of antibodies for histoplasmosis and coccidioidomycosis.

Table 1 shows the findings in our fungus studies without an effort to identify the type of fungus grown. It is apparent that one-fourth of the patients

TABLE 1.—*Findings in Fungus Studies.*

Total cases studied by culture	51
Cases showing no fungi	12
Cases showing 1 fungus (pathogenic or nonpathogenic)	10
Cases showing 2 fungi (pathogenic or nonpathogenic)	8
Cases showing 3 fungi (pathogenic or nonpathogenic)	3
Case showing 4 fungi (pathogenic or nonpathogenic)	1
Cases held for further incubation	17

newly admitted with positive skin tests did not show any fungus growth at all. Of the remaining three-fourths, the majority showed only one fungus present in the sputum, but we did find a case in which four different species were present.

Table 2 shows the actual breakdown of the different fungi found. One notes that there were 14 non-

TABLE 2.—*Types of Fungi Present in Cases Studied.*

Yeast (cryptococcus, not neoformans)	21
Aspergillus niger	4
Aspergillus fumigatus	4
Cladosporium	3
Pullularia pullulans	3
Syncephalastrum	3
Rhizopus species	2
Alternaria	2
Coccidioides immitis	2
Candida (not albicans)	1
Fusarium (light)	1
Paecilomyces	1
Penicillium	1
Sterilia	1

pathogenic and 2 pathogenic fungi isolated. Of the nonpathogenic types, the yeast (cryptococcus) was the largest single contaminant.

Table 3 shows the problem faced on admission of this group of patients. From table 3 one can realize

TABLE 3.—*Diagnosis of 51 Cases at Time of Admission.*

Confirmed by culture to have tuberculosis	12
Unconfirmed by culture to have tuberculosis	22
Held for further incubation	17

the problem concerning accurate diagnosis on new patients who are not definitely diagnosed to have tuberculosis. Actually in this group of 51 patients, only 12 could be proved to have tuberculosis, 2 were proved to have a fungus disease, and 39 had a diagnosis based on roentgen-ray findings or the report of sputum studies from the referring physician. A number of these patients were without doubt tuberculous, but because they were started on antimicrobial drugs before admission, the sputum may have reverted to negative.

In another field of investigation, 60 surgical specimens were studied postoperatively by special stains in the preparation of tissues. In this group we were able to demonstrate C. immitis in 2 patients. One case already had been diagnosed by previous sputum studies as was indicated earlier in this paper, but the second was diagnosed only postoperatively by tissue stains.

SUMMARY AND CONCLUSIONS

In a group of admissions to a sanatorium the accuracy of diagnosis of tuberculosis proved to be a real problem in certain cases. It was found that 39 of 51 questionable cases studied by sputum culture had no acid-fast organisms present. However, 2 of these 51 cases were proved to be coccidioidal in etiology.

During this same 6 months period the surgical specimens were studied for possible fungus disease, and 2 cases out of 60 proved to be coccidioidal in origin. From our experience with these new admissions, and also from surgical materials, we learned that 3 to 4 per cent of the difficult cases are not tuberculosis but rather are pulmonary disease due to fungi.

It is further hoped that this study will encourage pathologists to become more familiar with the characteristics of fungi and to recognize both the pathogenic types and the contaminants. Experience in the field is almost necessary in order to obtain a working knowledge of fungi.

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ABSTRACT OF DISCUSSION

DR. DAVID W. FLORY, Harlingen.—Fungus studies in cases of suspected or even proved pulmonary tuberculosis deserve emphasis. Cultural methods ultimately must be used in these studies since tuberculous and fungus diseases frequently are indistinguishable by clinical and roentgen-ray methods. The fact that in 2 cases pathogenic fungi were found demonstrates the need for such studies. Dr. Hershberger's statement, "Experience in the field is almost necessary in order to obtain a working knowledge of fungi," certainly is true in the face of the many nonpathogenic varieties found in sputum.

The paper emphasizes the importance of accurate and complete diagnosis before instituting treatment. This applies also to the practice of medicine in general. A tuberculosis sanatorium must study its patients with fungi, other bacteria, and malignant lesions as well as tuberculosis, in mind, and a physician practicing general medicine must study his patients with tuberculosis in mind even while treating them for other diseases.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-22, 1958. Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, Clinical Meeting, Philadelphia, Dec. 3-6, 1957. Dr. David B. Allman, Atlantic City, Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

SEPTEMBER

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 20-21, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.

Tri-State Medical Assembly, Shreveport, Sept. 12-13, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Industrial Medical Association, Houston, Sept. 26-28, 1957. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

OCTOBER

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Grosse Point 30, Mich., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Gastroenterology, Boston, Oct. 21-23, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Heart Association, Chicago, Oct. 25-29, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

Association of American Physicians and Surgeons, Interim Meeting of Delegates, Oct. 18, 1957. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southwestern Medical Association, El Paso, Oct. 9-12, 1957. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Texas Dermatological Society, El Paso, Oct. 12, 1957. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Geriatrics Society, San Juan, Oct. 25-26, 1957. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Neuropsychiatric Association, Dallas, Oct. 18-19, 1957 (with Central Neuropsychiatric Association). Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Surgical Society, Waco, Oct. 7-8, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Fourth District Society, Brownwood, Oct. 24, 1957. Dr. Scott H. Martin, San Angelo, Pres.; Dr. Fred Spencer, Jr., 308 W. Chandler, Brownwood, Secy.

Eighth District Society, Bay City, Oct. 19, 1957. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Texas State Board of Examiners in Basic Sciences, Austin and Houston, Oct. 18-19, 1957. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. W. B. Sherman, New York, Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of General Practice, Dallas, Spring, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.

American Association for Thoracic Surgery, Boston, May 16-18, 1958. Dr. Brian Blades, Washington, D. C., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Edgewater Park, Miss., April 23-25, 1958. Dr. George F. Cahill, New York, Pres.; Dr. W. J. Engel, 2020 E. 93rd, Cleveland, Secy.

American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Merle Moore, Portland, Ore., Pres.; Dr. David Thomas, 1467 Harper St., Augusta, Ga., Secy.

American College of Chest Physicians, San Francisco, June 18-22, 1958. Dr. Burgess L. Gordon, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5-8, 1958. Dr. Ira H. Lockwood, Kansas City, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.

American Gastro-Enterological Association, Washington, D. C., May 30-31, 1958. Dr. M. W. Comfort, Rochester, Minn., Pres.; Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society, Asheville, N. C., May 19-21, 1958. Dr. Howard C. Taylor, Jr., New York City, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 16-18, 1958. Dr. Israel S. Wechsler, New York, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, White Sulphur Springs, W. Va., May 28-30, 1958. Dr. Walters Atkinson, Watertown, N. Y., Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Atlantic City, N. J., May 8-9, 1958. Dr. A. Ashley Weech, Cincinnati, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.

American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E. Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, San Francisco, May 12-16, 1958. Dr. Harry C. Solomon, Boston 15, Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Surgical Association, New York, April 16-18, 1958. Dr. John Mulholland, New York, Pres.; Dr. William Altemeier, Christian R. Holmes Hospital 19, Cincinnati, Secy.

American Urological Association, New Orleans, April 29-May 1, 1958. Dr. William J. Baker, Chicago, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

National Tuberculosis Association, Philadelphia, May 24-29, 1958. Dr. William M. Morgan, Alliance, Ohio, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum, Shreveport, Feb. 23-25, 1958. Dr. H. Whitney Boggs, Shreveport, Pres.; Dr. J. D. Youman, 2021 Line Ave., Shreveport, Secy.

Southwestern Society of Nuclear Medicine. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

United States-Mexico Border Public Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

State

Private Clinics and Hospitals Association of Texas, Dr. R. D. Holt, Meridian, Pres.; Mr. Bill Schumacher, Box 383, Sherman, Executive Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, Houston, April 20-21, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, Houston, April 20, 1958. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Houston, April 20, 1958. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Diabetes Association, Houston, April 20, 1958. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Heart Association, Houston, April 20, 1958. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Dallas, May 5-8, 1958. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Ophthalmological Association, Houston, April 22, 1958. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Houston, April 21, 1958. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.

Texas Physical Medicine and Rehabilitation Society, Houston, April, 1958. Dr. Odon F. von Werssowetz, Gonzales, Pres.; Dr. Edward M. Krusen, Baylor Hospital, Dallas, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Texas Society of Anesthesiologists, Houston, April 20, 1958. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Houston, April 20, 1958. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.

Texas Society of Plastic Surgeons, Houston, April 19, 1958. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Traumatic Surgical Society, Houston, April 20, 1958. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, 2406 Manor Road, Austin, Executive Director.

Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.

Second District Society, Lamesa, Spring, 1958. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Amarillo, April 5, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, 1958. Dr. Foy Moody, Corpus Christi, Pres.; Dr. Thelma Frank, 129 Rainbow Lane, Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.
Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.
Eleventh District Society. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.
Twelfth District Society. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.
Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.
Fifteenth District Society. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.
Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Executive Offices, 433 Medical Arts Bldg., Dallas 1.
International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.
New Orleans Graduate Medical Assembly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.
Postgraduate Medical Assembly of South Texas. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.
State Tumor Conference, Wichita Falls, April 12, 1958. Dr. Edwin C. Bebb, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Medical Examiners, Fort Worth, Dec. 5-7, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

MEDICAL MEETINGS

Texas Pediatric Society

The Texas Pediatric Society will meet in Austin October 18-19, and the program will be as follows:

Primary Tuberculosis—Dr. Ralph Platou, New Orleans.
Open Heart Surgery—Dr. Dan McNamara, Houston.
Management of the Mentally Retarded Child—Dr. Harry Bakwin, New York.
Anaphylactoid Purpura—Dr. Theo Panos, Galveston.
Nephritis and Nephrosis—Dr. James Baty, Brookline, Mass.
Growth Failure—Dr. John James, Dallas.
Recurring Abdominal Pain—Dr. Baty.
Office Management of Behavior Disturbances—Dr. Bakwin.
Diagnostic Problems; Kodachrome Clinic—Dr. Platou.
Panel Discussion: Common Problems in Pediatric Practice—Dr. Platou, Dr. McNamara, Dr. Bakwin, Dr. Panos, Dr. Baty, and Dr. James.

Reservations in Austin should be made directly with motels or hotels. The meeting is open to all physicians.

Texas Industrial Medical Association

The Texas Industrial Medical Association will hold its fall meeting in conjunction with Houston's Industrial Health Conference for Business and Industry September 27. Registration will begin at 8:30 a. m., and the registration fee of $7.50 will include a luncheon.

Guest speakers will include Dr. Perry C. Talkington, Dallas; Mr. Harry W. Ferguson, Houston; Dr. William P. Shepard, New York; and Robert L. Sutherland, Ph.D., Austin.

In the evening there will be a business meeting followed by cocktails and dinner at the Doctors' Club.

American Public Health Association

A wide variety of topics will be covered during the November 11-18 meeting in Cleveland of the American Public Health Association. More than 40 related organizations will hold simultaneous meetings, and a total attendance of 4,500 is expected.

About 400 papers will be presented during the 75 sessions; quality of medical care, health services for industrial workers, medical care for the mentally ill, community health services for children, weight control in growth and development, mental health and the school-age child, international environmental health, health problems of the aging populations, epidemiology of accidents, water fluoridation, air pollution, health aspects of housing, and community mental health will be among the topics of discussion.

Texan to Speak At Bahamas Conference

Dr. R. Lee Clark, Jr., Houston, will speak before the Fourth Bahamas Medical Conference in Nassau December 1-15. His subject will be "Clinical Aspects of Soft Tissue Tumors" and "The Principles of Cancer Surgery." Other guest speakers will be Drs. Edward E. Avery, Chicago; Bernard B. Brodie, Bethesda; Denis Cavanagh, Miami; J. Maxwell Chamberlain, New York; Claude F. Dixon, Rochester, Minn.; John J. Farrell, Miami; James Henry Ferguson, Miami; William W. Frye, New Orleans; James D. Gallagher, Pearl River, N. Y.; Leonard Gottesman, Cincinnati; Hudson Hoagland, Shrewsbury, Mass.; S. W. Hoobler, Ann Arbor; Earle B. Kay, Cleveland; Chauncey D. Leake, Ph.D., Columbus, Ohio; Thomas W. Mattingly, Washington, D. C.; John C. McClintock, Albany, N. Y.; Marvin Moser, White Plains, N. Y.; Irvine H. Page, Cleveland; Gregory Pincus, Shrewsbury; Paul R. Rosenbluth, Chicago; Roy O. Scholz, Baltimore; Elmer L. Severinghaus, Nutley, N. J.; Donald W. Smith, Miami; G. Arnold Stevens, Beverly Hills; A. Waite Bohne, Detroit; and Henry Zimmerman, Cleveland.

Hotel reservations may be made by writing John L. Cota, General Manager, Fort Montagu Beach Hotel, Nassau, Bahamas. Special hotel rates will be $28 per day for two persons in one room, and $18 per day for one person. Prices include three meals a day. When 14 persons travel together, the airlines allow one free ticket.

NATIONAL ASSOCIATION FOR MUSIC THERAPY

The eighth annual conference of the National Association for Music Therapy, Inc., will be held in East Lansing, Mich., October 10-12 at the Kellogg Center for Continuing Education. The program will be designed to aid persons working with music for children, mental and tuberculous patients, physically handicapped and mentally retarded patients, the emotionally maladjusted, and research.

NEUROPSYCHIATRISTS TO MEET

The Texas Neuropsychiatric Association and the Dallas Neuropsychiatric Association will be hosts to the Central Neuropsychiatric Association in Dallas October 18-19. Dr. Stephen Weisz, Dallas, is chairman of the program committee, and Dr. William P. Shelton, Dallas, is chairman of the committee on general arrangements. There will be no registration fees, and visitors will be welcome.

ACS to Meet in Dallas

A sectional meeting of the American College of Surgeons will be held January 9-11 in Dallas, and subjects for the program range from chemopallidectomy for Parkinson's disease to bomb phenomenology. Dr. Frank H. Kidd, Jr., Dallas, heads the planning committee for the Dallas meeting. Two new features are scheduled for each sectional meeting this year: a fellowship luncheon at which a panel of College officials will answer questions about the entire program of College activities and, in turn, pose questions to the audience; and a social, rather than scientific, dinner meeting, to which program participants, visiting surgeons, wives, and other guests will be invited for an informal evening of entertainment.

Other sectional meetings, scheduled for later in the year, will be in Jackson, Miss.; New York; Salt Lake City; Des Moines; and Stockholm, Sweden. The annual clinical congress will be October 6-10 in Chicago.

ENDOCRINOLOGY AND METABOLISM

The ninth postgraduate assembly in endocrinology and metabolism will be held in Augusta, Ga., October 21-25, and the faculty will consist of 22 clinicians and investigators from various parts of the country in the fields of endocrinology and metabolism. The program will cover the various endocrinopathies, with emphasis on the clinical aspects, demonstration of laboratory tests, presentations of cases, and questions and answers. Registration is limited to 100, and the tuition fee is $100. Residents and fellows will be admitted for $35. This meeting is sponsored by the Endocrine Society, the Medical College of Georgia, and the Medical College of Georgia Foundation, Inc.

MEDICOLEGAL NOTES

Definite Proof Necessary For Malpractice Verdict

The highest court in our state in cases of a civil nature, the Supreme Court of Texas, has spoken but seldom in cases dealing with malpractice, but one of the cases in which an opinion was handed down by the Supreme Court of Texas is a fairly recent one, and is also one of much importance. Such decision was in the case of Bowles et al. v. Bourdon et al.*

This was a suit for malpractice, and the trial judge after hearing the evidence instructed a verdict in favor of the defendant physician. The patient appealed this decision of the trial court to the Court of Civil Appeals which affirmed the trial court's action.† The patient then appealed to the Supreme Court of Texas.

The chain of events which gave rise to this suit for malpractice began on July 16, 1941, when Harry Bowles, a boy 4 years old, fell and fractured his left elbow just above the joint. An hour later the defendant physician examined the boy's elbow by x-ray. Discovering the fracture, the physician administered an anesthetic and set the injured arm. When the fracture had been set, the physician brought the lower arm up against the upper arm and then bound them together by wrapping tape and bandage around them to form a cone shape. When this was finished, another x-ray was taken to determine if the bones were still in proper alignment. Before the above procedures had been performed, there had been some hemorrhage with blueness around the elbow with some swelling of the arm. It was also shown that prior to these procedures, there had been no pulse, but subsequent to the procedures the pulse could be felt.

The parents of the boy and others testified at the trial that some 4 hours after the elbow had been set it was discovered: "His hand was turning blue and his fingernails were very purple. His fingers and hand were cold, it seemed like all the circulation was leaving his hand and naturally it turned cold and blue." Also, there was further testimony indicating that the boy was in pain.

The facts further show, by the parents' testimony, that the mother then telephoned the physician and told him that the hand was "awfully blue and ice cold" and asked if the bandage could be too tight, "because the hand was so cold." The mother then testified that the physician stated the hand was all right and that she should not worry about it, but to bring the boy in the next day for examination. The physician stated in a deposition taken prior to trial that he recalled the conversation in part, but did not recall any mention of the hand being discolored and cold. He said, "I think if that had been mentioned, that was too serious for me not to remember. I think I would remember it if it had been brought home to my attention." The only part of the conversation with the mother that he remembered was that the boy was suffering pain, which he said was to be expected. He further testified, "If I had understood that, I would either come over or had them meet me at the hospital, because there would be no excuse for not seeing a patient who had an ice cold hand."

When the parents took the boy to the physician's office the next morning, the mother asked about the hand. She testified that the physician said he thought the bandage was too tight and "snipped it a little on both sides."

The boy was examined almost every day for the first week following the accident, and thereafter until August 21 about twice a week. The mother testified that about 2 weeks after the arm had been set she asked the physician why the boy was unable to move his fingers, and that his hand looked sort of blue, and that the physician had said nothing was wrong with the hand. She further testified that on August 21 she again called the physician's attention to the boy's fingers, and he said, "Hasn't he been able to move them?" and that she replied, "No, I thought you knew."

As a result of this discussion between the physician and the boy's mother, a bone specialist, Dr. Bloom, was called in by the defendant physician. Dr. Bloom testified that on August 21 when he first examined the boy, he found a healing or healed fracture of the upper arm with a Volkmann's contracture of the left forearm, and that the characteristics of the contracture were visible in a claw hand, a considerable wasting of the muscles which draw the hand to make a fist, and lack of control over the fingers.

It was alleged in the trial of the case that the physician was negligent (1) in binding the area so tightly as to stop blood circulation thereby bringing about the contracture, (2) in not examining the arm and in not loosening the bandage when notified some 4 hours after setting the arm that it was blue and the fingernails purple, and (3) in failing to recognize or treat the contracture between July 16 and August 21, when Dr. Bloom took over the case.

The judge of the trial court instructed a verdict for the physician after the evidence had been presented on the grounds that the plaintiff had failed to support his allegations of negligence "with proper or sufficient expert testimony showing negligence on the part of the defendant, . . . and had failed to show that defendant's negligence, if any, was the proximate cause of plaintiff's injury and damage."

It developed during the trial of the case and subsequently upon appeal, that the plaintiff was relying for the most part

*219 S.W. (2d) 779 (1949).
†Bowles v. Bourdon, 213 S.W. (2d) 713.

upon the theory that the physician had been negligent in having the bandage too tight, and that such act was the cause of the contracture. There was extensive testimony upon this point by the defendant physician, Dr. Bloom, and another physician who was called to testify on behalf of the plaintiff. Many of the questions posed to the physicians dealt with what was the cause of the Volkmann's contracture with the view undoubtedly in mind by the plaintiff's attorney to establish that a tight bandage was the probable and likely cause of the contracture. The answers in the testimony of the physicians ranged from the statement that there was doubt and uncertainty in the medical profession as to the exact cause of a contracture of this nature, to a reply that a tight bandage "might" or "possibly" could have been the cause.

The first point which was discussed by the Supreme Court in its opinion dealt with the elements that the plaintiff in a malpractice case must establish. The decision read, in part, "It definitely is settled with us that a patient has no cause of action against his doctor for malpractice, either in diagnosis or recognized treatment unless he proves *by a doctor of the same school of practice as the defendant* (italics ours), (1) that the diagnosis or treatment in question was such as to constitute negligence, and (2) that it was the proximate cause of the patient's injuries."

In commenting upon the evidence which had been presented in the attempt to show the cause of the contracture the court stated, "As a circuit judge in Ohio, Chief Justice Taft clearly stated the principle, with the reason supporting it, in these words: 'When a case concerns the highly specialized art of treating (disease), with respect to which a layman can have no knowledge at all, the court and jury must be dependent on expert evidence. There can be no other guide, and, where want of skill and attention is not thus shown by expert evidence applied to the facts, there is no evidence of it proper to be submitted to the jury. Again, when the burden of proof is on the plaintiff to show that injury was negligently caused by the defendant, it is not enough to show the injury, together with the expert opinion that it *might* (italics ours) have occurred from negligence and many other causes. Such evidence has no tendency to show that negligence did cause the injury.‡ And, if his is a recognized school of good standing with established rules and principles of practice for the guidance of its members, the accused doctor "is entitled to have his treatment of his patient tested by the rules and principles of the school of medicine to which he belongs, and not by those of some other school, because a person professing to follow one system or school of medicine cannot be expected by his patient to practice any other, and if he performs the treatment with ordinary skill and care in accordance with his school of practice, he is not answerable for bad results.'"'"‖

The Supreme Court, in further comment upon the evidence presented in this case, stated: "All it shows is that what respondent (physician) did was not a *probable* but a *possible* cause of the contracture; that it was only one of several things that *could* have caused the injuries complained of" (all italics ours but the last one—it was in italics by court).

"And if the plaintiff would rest upon inferences rather than upon direct evidence, he meets the same rule." The proof must establish causal connection beyond the point of conjecture. It must show *more than a possibility*. Verdicts must rest upon *reasonable certainty of proof*. Where the proof discloses that a given result *may* have occurred by reason of more than one proximate cause, and the jury can do no more than guess or speculate as to which was, in fact, the efficient cause, the submission of such choice to the jury has been consistently condemned by this court and other courts."§

‡*Ewing et al v. Goode, 78 Fed. 442.*

‖*41 Am. Jur., p. 203, sec. 85, citing Floyd v. Michie (Texas Civ. App.), 11 S.W. (2d) 657.*

§*Ramberg v. Morgan, 218 N.W. 492.*

This decision by the Supreme Court of Texas firmly establishes two basic principles for the courts of our state to follow. First, it is essential that the plaintiff show by expert testimony that the defendant has been negligent and such expert testimony must be given by one who is a member of the defendant's own school of medicine. Second, the evidence introduced by the plaintiff to sustain an action for malpractice must be of the nature to show "reasonable probability," and if it only shows "possibility," it will not suffice.

—PHILIP R. OVERTON, LL.B.

Workmen's Compensation Amendments Affect Doctors

The fifty-fifth Texas Legislature brought about major changes in the Texas Workmen's Compensation Act. Some of these changes are of interest to members of the Texas Medical Association who treat injured workmen under that law, the Committee for Liaison with Workmen's Compensation Insurance Companies points out.

The most important changes from the medical standpoint are (1) maximum weekly indemnity increased from $25 to $35; (2) medical benefits extended from 91 days to such period as the nature of the injury may require; and (3) compensation for partial incapacity resulting from general injuries to be computed on a wage loss factor rather than, as formerly, on a percentage of disability.

Medical Services.—Section 7, Article 8306 as amended, abrogates the provision restricting medical services to 91 days from the date of the injury and provides that the insurance carrier: ". . . shall furnish such medical aid, hospital services, . . . as may reasonably be required at the time of the injury and at any time thereafter to cure and relieve from the effects naturally resulting from the injury. . . ." Original jurisdiction to pass on all questions pertaining to disputes that might arise incident to rendering treatment under the act is vested in the Industrial Accident Board. Procedural changes, particularly with reference to limitations on the time within which matters pertaining to medical treatment must be presented to the Industrial Accident Board, are included in an amendment to Section 5 of Article 8307.

Silicosis and Asbestosis.—Section 26(d), Article 8306, limits the liability of the insurance carrier for treatment of incapacity from silicosis or asbestosis to a period of 91 days.

Partial Incapacity.—Section 11, Article 8306, governs the benefits due for partial incapacity when the partial incapacity results from a general injury. The amendment to this section is the one which most vitally concerns the medical profession and which will require the greatest deviation from the procedures heretofore followed, the committee emphasizes. General injuries are those which involve the body as distinguished from specific injuries (listed in Section 12) which involve the extremities or the senses. Section 11 requires that benefits due for partial incapacity resulting from a general injury be computed on the basis of 60 per cent of the difference between the average weekly wage before the injury and the average weekly wage earning capacity during the existence of such partial incapacity. This is a wage loss concept as distinguished from a concept of functional or physical disability. Therefore, benefits are now to be computed on the basis of the diminution of earning capacity as distinguished from a percentage of disability. Whether such partial incapacity is temporary or permanent, the formula remains the same but involves averaging the wage earning capacity over the period of disability. The amendment specifically prohibits the use of a percentage of disability as a basis for computing benefits under this sec-

tion and thus renders medical reports in terms of such percentages completely worthless.

The physician's role remains the same in that he is still asked to supply medical information. The determination of the previous earnings and the determination of the earning capacity during the existence of partial incapacity is not the responsibility of the physician, but he is the source of the medical facts which must be considered in arriving at the latter figure.

The objective to be arrived at, ultimately, is the diminution in the value of the services of the injured workman on the labor market as reflected by his inability to earn full wages because of incapacity resulting from his injury. The test takes into consideration the type of work for which the particular injured workman is suited by reason of his age, previous training and experience, special knowledge, and the vicinity in which he resides. The agencies having responsibility for making a fair computation of the benefits due for partial incapacity, either permanent or temporary, which results from a general injury are interested in the following medical information:

1. Any previously existing defects which may affect the capacity to earn wages.
2. Any changes due to age and other factors not connected with the injury.
3. Presence of any anatomical or structural defects resulting from the injury.
4. Any functional changes due to the injury.
5. Any loss of efficiencies as a result of the injury in (a) endurance, (b) speed, (c) strength, (d) coordination.
6. Any reduction in ability to pass preemployment examinations.
7. Specific tasks of which the patient is capable, specific tasks of which the patient is incapable, and specific tasks of which the patient is capable only in part.
8. Subjective changes.

Without information of this nature, it is practically impossible to arrive at any accurate estimate of the loss of earning capacity, the committee states. Before the law was amended, medical reports which related only the disability of an injured workman were adequate. The amendment now will require, in addition to that information, the medical findings with respect to the ability or capacity to work. The report should include the tasks or functions which are capable of being performed as well as those which may not be performed. If the analysis of the abilities and inabilities of the patient is to be useful and informative, it is necessary for the physician to obtain the injured workman's history, his experience and training, the type of work for which he is suited, and the physical requirements of such work.

Specific Injuries.—The information which the physician must furnish with reference to specific injuries (Section 12, Article 8306) is not changed by the recent amendments, although those who must compute the benefits are required to use a different formula. Benefits due for specific injuries are on a different basis from those resulting from general injuries. Benefits are payable for specific injuries, regardless of whether or not the injured workman loses any time from his work and regardless of whether or not he suffers any loss of wages or wage earning capacity. Section 12 requires medical reports with respect to the loss of a specific member or the loss of use of a specific member or sense. Total loss or loss of use of an extremity or sense should not present any difficulty. However, a partial loss involves a determination of the extent of physical limitation in the use of the specific member. Loss of use may be permanent or temporary, and the report should include an accurate estimate of the amount of functional loss which is present at the time stated in the report, the expected improvement, and the degree of residual or permanent loss which is anticipated.

General Responsibility.—In general, the physician always should report promptly the date on which the injured workman will be capable of returning to work, whether to full duties or to light duty, and if to light duty, the date he should be able to resume his full duties.

When it is observed that an injured workman is a proper candidate for vocational rehabilitation, this fact should be reported promptly to enable the interested agencies to perform their various functions as provided in Section 7, Article 8306.

Further Information.—Additional details of the workmen's compensation amendments will be mailed to Texas physicians by the committee.

OF GENERAL INTEREST

Personals

Dr. John B. Cummins, Fort Worth's 98 year old physician, was pictured in a double page spread in the August issue of *MD,* medical newsmagazine.

Dr. James T. Mills, Dallas, spoke on "Surgical Problems Involved in the Repair of the Extensive Neck Contractures" at the recent meeting in Chicago of the International College of Surgeons. *Dr. William K. Wright,* Houston, was a panel member on the program of the International College of Surgeons. His group considered "Myringoplasty and Tympanoplasty for the Improvement of Hearing in Non-Otosclerotic Conductive Losses."

Dr. Saul Kit, Houston, has received a grant from the Leukemia Society, Inc., for his project, "The Incorporation of Labeled Compounds into Desoxyribonucleic Acid Thymine (DNA-T) by Normal and Malignant Lymphatic Tissues."

Dr. James N. Lang, Sherman, accompanied the Austin College Choir on its five week concert tour of Europe during August. They visited the Netherlands, Belgium, Paris, Western Germany, Austria, Italy, England, and Scotland.

Dr. John E. Skogland, Houston, was in Chicago in July for a meeting of the American Congress on Legal Medicine and Law-Science Problems. He presented papers on "Contributions and Limitations of Electroencephalography in Head Injury Cases" and "Mechanisms by Which Pain or Headache May Be Produced by Craniocerebral Trauma."

Dr. Ben Withers, Houston, recently returned from England where he read papers before the University of London Post Graduate School, London, and the Eye, Ear, Nose, and Throat Section of the Royal Society of Medicine held in Bristol.

Dr. John A. Wall, Houston, addressed the American Association of Obstetricians and Gynecologists in September on "The Team Approach in Endometrial and Cervical Neoplasia."

Induction of Doctors And Dentists Postponed

The Department of Defense has issued a bulletin stating that it does not expect to place a call on the Selective Service System for physicians or dentists during the current fiscal year. Whenever a physician or dentist is classified as available for service, the local board shall delay issuance of his order to report for a physical examination or, if such an order already has been issued, it will be canceled. Orders to report for induction likewise will be postponed or canceled. This bulletin was issued August 19.

"Come Hell Or High Water"

From the buffeting she received the first half of this year, Texas might have been Mother Nature's stepchild. In January, 244 of the state's 254 counties were listed as drouth disaster areas eligible for federal aid. From February 16 through June, at least 121 tornadoes touched ground somewhere in the state—five of them being classified as major tornadoes. Beginning in mid-April, 13 river basins were affected by floods. A late blizzard in the Panhandle in March and the lashing tail of Hurricane Audrey on the coast in June added to the season's disasters. At least 61 deaths, more than 600 injured, and property damage exceeding $100,000,000 have been charged to turbulent weather by William L. McGill, state coordinator of defense and disaster relief; 65 counties and 90 cities have requested federal assistance under Public Law 875.

And where were Texas doctors? In the thick of the fight to keep mortality and morbidity figures at the lowest possible levels.

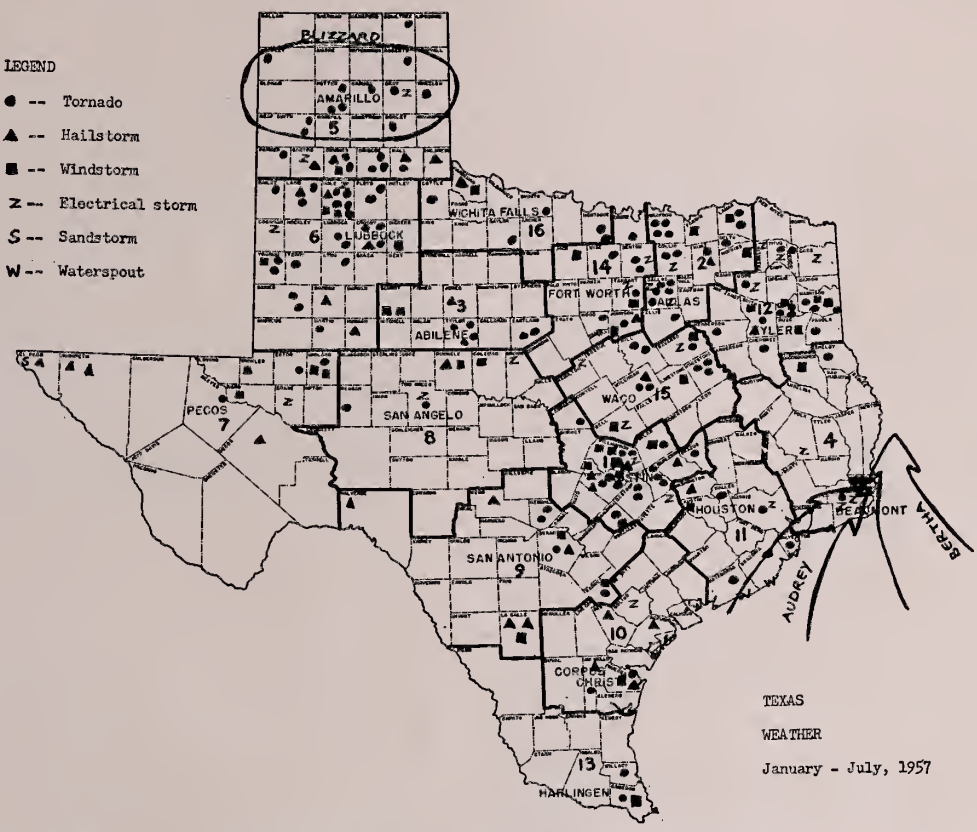
Hurricane Audrey

Take Hurricane Audrey. Early reports from the United States Weather Bureau warned that the disturbance boiling up in the Caribbean likely would strike hardest in the area from Orange to Galveston. Physicians and hospitals, as well as Red Cross, Civil Defense, and others, began readying for the blow. Although the hurricane veered to the east, wreaking its greatest fury in Louisiana on June 26 and 27, many Texans were evacuated and given mass care in designated shelters—850 in Beaumont, 10,000 in Port Arthur, 8,000 in Orange, 850 in Galveston. Whereas the death toll in Louisiana exceeded 500, Texas had only 9 deaths and less than 250 injuries, mostly minor, from the hurricane.

It was natural, therefore, for the physicians and nurses who had expected to care for casualties to offer their services to their neighbors across the state line. Dr. R. S. Browne and Dr. T. B. Sappington of Port Arthur and Dr. Darwin D. Moore, Dr. L. M. Williams, and Dr. M. T. Danak of Beaumont together with some nurses spent up to two days assisting in Cameron, La. Other Texas volunteer workers were provided with first aid supplies, especially snake bite kits, were given typhoid immunization, and left for the devastated area to help. Antityphoid injections were given a number of residents of Texas, especially the Sabine-Sabine Pass area, as a precautionary measure, and chlorine dosages in the water supplies were increased to compensate for possible minor breaks and back-siphonage although none were observed and water service was maintained.

After the worst of the ordeal was over, the Jefferson County Medical Society investigated the situation in Cameron and voted to assess members of the society to provide a minimum of $1,000 to help Dr. Cecil W. Clark, the Cameron physician who lost three children, as well as his home, office, and automobile, in the hurricane, to reestablish himself.

As a footnote to the Hurricane Audrey story, Harry Moore, Ph.D., University of Texas sociologist who directed studies of the San Angelo and Waco tornadoes several years ago,



Few areas of Texas were spared from some aspect of severe weather the first half of 1957. The map, prepared in the Division for Defense and Disaster Relief, Austin, shows at least some of the worst hit locations.

surveyed the Louisiana scene and reports that one of the chief causes of the large number of deaths from Audrey was the strange failure of communication between the Weather Bureau and the people. Psychologically, the fishermen and trappers of the Louisiana marshland were conditioned to storms and dangers. They listened to the weather reports, which warned of violent winds as warnings year after year had done;

Contributions to help Dr. Cecil W. Clark of Cameron, La., reestablish his practice following severe losses in Hurricane Audrey may be sent to Jefferson County Medical Society, P. O. Box 253, Beaumont, or to Cameron Parish Medical Rehabilitation Fund, Louisiana State Medical Society, Room 105, 1430 Tulane Avenue, New Orleans 12.

they failed to grasp the full significance of these amazingly accurate reports and did not try to get out in time. (When Hurricane Bertha was announced a few weeks later in the same area, evacuation was prompt.) Psychological conditioning—mental and emotional response—is an aspect of disaster that physicians as well as sociologists must confront.

Lampasas Flood

Although confined in a much smaller area, the Lampasas flood May 12 was as spectacular in its own way as Hurricane Audrey. Fortunately, the loss of life totaled just 5 with only a score being hospitalized, but 90 per cent of the business district was destroyed and 310 homes were damaged or destroyed. Electricity was knocked out; raw sewage was dumped into swollen creeks; most telephones were useless. The local hospital and its staff were able to care adequately for flood victims, although nearby Burnet and other cities offered help if needed. (The Shepperd Memorial Hospital at Burnet had a disaster plan patterned after those in Dallas and San Francisco but modified to meet the needs of a small hospital ready to put into effect when necessary.)

Dr. W. M. Brook and three passengers in Lampasas had started in Dr. Brook's car to see the flood situation when rapidly rising water caught them. The car stalled and was smashed into the side of a building, where it hung briefly before being swept away. All of the passengers managed to escape. Dr. Brook was washed into a tree from which he later swam to higher ground, but he lost a $100 bill and a $50 bill from his pocket. Less than 12 hours later, the $100 bill was returned by a Fort Hood soldier who had come to help in rescue work. The doctor rewarded the soldier with $20 and donated the remaining $80 to the Red Cross relief fund.

A damaged house swept into the street, leoning telephone poles, rubbish washed into odd places, stonding water, and dazed people are the aftermath of the Lamposas flood. (Photograph by Stote Department of Public Safety.)

Fort Hood personnel and equipment did much to clean up the flood devastated town, disposing of spoiling foodstuffs and decaying carcasses of animals that were health hazards. Tank trucks provided by the Texas National Guard and the Texas Highway Department furnished emergency supplies of water. The Red Cross operated mobile canteens and two refrigerator trucks provided by private industry. Typhoid, tetanus, and poliomyelitis immunization was provided by the State Department of Health, and the local health officer, Dr. Rush McMillin, spent 10 days after the flood away from his private practice helping to coordinate cleanup operations necessary to avoid contagion. Dr. McMillin points to delay in receipt of syringes and antitoxin, the desirability of an administrator from state or federal agencies to work with the local health officer, and the need to formulate a plan by which civilian facilities might be substituted for Army equipment in wartime disasters as worth consideration for the future.

Silverton Tornado

A few days after Lampasas was inundated, the 1,500 people of Silverton witnessed a torrential downpour of rain followed by 10 minutes of hailstones the size of golf balls. Then a tornado struck. The main force was directly south of the business district, where 20 homes, a gin, and an elevator were reduced to rubble. Let Dr. Crawford H. Black of the stricken town speak:

"When I arrived at the hospital, three people were waiting for me. In the next few minutes, six dead babies were brought in, their deaths resulting from multiple head fractures. The hospital was without lights and water, and as more injured people poured in, the hospital was turned into a clearing and first aid station. Pain was prevalent, but there was very little bleeding, perhaps because of the lowered blood pressure and shock. These patients were cleaned; some were given seconal sodium, and some were given sodium pentothal intravenously. They were then sent on to surrounding hospitals [in Amarillo, Plainview, Lubbock, Tulia, and Dimmitt] after their shock had abated somewhat."

Dr. Black emphasizes the need for more preparation for such potential disasters and for teamwork within the community. "Sufficient warning is necessary," he stresses, "so the potential victims can protect their heads as it seems that head injuries in these disasters occur more frequently than any other type of injury, and I observed that the lighter and smaller the person, the worse the head injury. I would strongly advocate the use of head helmets for those who do not have ready access to basements or dugouts." He praises the cooperation of the neighboring towns and the ambulance service provided by them.

Dead in Silverton? Twenty-two. Injured? Eighty.

Proof that preparedness and teamwork do mean a saving in life and health in time of disaster was given when metropolitan Dallas was struck by a tornado April 2. A detailed emergency plan was in operation within minutes. The staff of Parkland Memorial Hospital handled 176 injured, lost 3 other victims, and received 7 bodies; Methodist Hospital received 18 patients, and the emergency staffs of Baylor and St. Paul Hospitals were on a standby basis if needed. (Further details of the Dallas disaster were published in the May issue of the *Journal*, page 352.)

Universal Problem

The Victoria County Health Unit director, Dr. Roy G. Reed, states one problem typical of those encountered in almost every section of Texas this spring:

"The one broad public health problem which arose throughout the county and by which we received some $25,000 under Public Law 875 was hordes of mosquitoes. Species isolated were capable of transmitting encephalitis and malaria, or were just plain pest varieties. This menace to health and happiness was controlled through a City-County concerted effort of larviciding and adulticiding with DDT in oil and BHC powder, application being made by plane and ground power equipment.

"One other major problem," Dr. Reed mentions, "which gave us concern was the many private water wells which were inundated by both Guadalupe River overflow and heavy rainfall. All individuals using water from these wells were warned by radio and press to chlorinate or boil all water for household use until such time as individual wells were proven by laboratory procedure to be furnishing potable water. Fortunately, we had no typhoid fever or diarrhea chargeable to flood polluted drinking water."

Typical of the destruction wreaked by the tornado at Silverton are the remains of this house, where searchers check to be sure no one was buried in the debris. (Photograph by Richard Pipes, *Amarillo Daily News.)*

The State Department of Health reports, Dr. T. E. Dodd, civil defense and emergency medical service liaison officer there, has been asked to carry on 64 vector control programs and 23 projects for the repair of water plants, sewerage systems, and water well purification. In most of these same areas, immunization programs of some sort were instituted as well.

Dr. Dodd quotes Dr. E. Aubrey Cox of Wichita Falls as saying that by the time power equipment, dust, spray, and labor crews could be mobilized there, mosquitoes were being reported as "so many per square foot of air space." At the same time, physicians were at work protecting the people of Wichita Falls from typhoid, for the flood water entering sewer mains boiled out from manholes all over town "contaminating everything." Much the same situation occurred in Haltom City, Hurst, White Settlement, and Richland Hills in Tarrant County, and in many cities and counties across the state, yet the diligence of medical men prevented epidemic of enteric diseases. For example, Dr. Carl H. Whalen and his colleagues in Weatherford—typical of Texas doctors, Dr. Dodd comments—sent word to flood victims in towns along the Brazos River where there were no physicians to report to any of their offices for protective inoculations without charge.

Dr. Dodd emphasizes that there were no cases of tetanus despite the many lacerations and puncture wounds during the tornadoes and during the clean-up after tornadoes and floods. He attributes this to the quality of care and good judgment practiced by physicians in the disaster areas.

Following the severe weather, reports of fevers of any cause in mounting numbers of cases were watched closely, Dr. Dodd relates. The possibility of encephalitis in particular was kept in mind. Studies in the Tyler-Smith County area and in the Lubbock area were negative. However, early in August, the physicians of Cameron County noted 19 cases of clinically diagnosed encephalitis, and laboratory studies confirmed the diagnosis. Control measures directed at the carrier mosquito were instituted, but the disease continued to spread to near epidemic proportions.

Disaster and Physicians

Although Texas has the sorry distinction of ranking first in the nation in the number of all major disasters and this year's disasters already have cost the equivalent of nearly $12 per man, woman, and child, its citizens as individuals or as organizations, Civil Defense groups, Red Cross workers, state agencies, federal units stationed in Texas or sent in as needed —all working together make the best of bad situations as they arise. Physicians are no exception.

Dr. Raymond F. Barnes of St. Louis, medical director for the midwestern area of the American National Red Cross, sums it up thus:

"As to the reaction by physicians in these disasters, it has been my observation that they have in all cases responded immediately and voluntarily, even coming in from surrounding communities without call, and have done all possible to relieve pain and give proper treatment to the victims until all are cared for and those hospitalized who needed to be.

"Admittedly, in some communities the pre-disaster planning is better than in others and the doctors are a definite part of such planning. In all cases, however, the doctors and hospitals have done their very best regardless of personal comfort, fatigue, or working conditions.

". . . Certainly, there were instances in all these disasters [including the Texas City explosions and other disasters before 1957] where conditions made medical care difficult, where transportation mix-ups occurred, and even where lack of pre-disaster planning and organization were evident, but this has been the case in every disaster everywhere and probably will remain so in some degree in spite of all precautions. On the whole and in all sincerity . . . I have nothing but praise for the response, the efficiency, and the tireless efforts of the Texas doctors in the disasters that have occurred in your state in the past fourteen years."

May it ever be so.

EDUCATION

Postgraduate Courses

American College of Physicians—A 31 page booklet describing various courses offered through the American College of Physicians during autumn and winter throughout the country is available from the executive secretary, E. R. Loveland, 4200 Pine Street, Philadelphia 4. These courses are made available by the college to its members at a minimum cost, but where facilities are available, the courses will be open to nonmembers.

Occupational Skin Problems—Cincinnati, October 28-November 1—This course is sponsored by the University of Cincinnati, Department of Preventive Medicine and Industrial Health. Registration fee will be $100. The program

will be divided into five daily sessions consisting of didactic lectures and clinical demonstrations, field instruction in industrial plants, and panel discussions. The Secretary, Institute of Industrial Health, Kettering Laboratory, Eden and Bethesda Avenues, Cincinnati 19, will accept reservations.

New York University-Bellevue Medical Center Postgraduate Medical School Courses, New York, October and November—Postgraduate courses will be available during the month of October in the following departments: anesthesiology, dermatology and syphilology, industrial medicine, medicine, neurosurgery, obstetrics and gynecology, orthopedic surgery, pathology, pediatrics, physiology, radiology, and surgery. During November, courses will be offered in the departments of medicine, obstetrics and gynecology, ophthalmology, otorhinolaryngology, and pediatrics. Details may be obtained from the Associate Dean, 550 First Avenue, New York 16.

Gastroenterology, Houston, October 4-5—Newer trends in treatment of diseases of the digestive tract will be emphasized, and Dr. John Kelsey will be the instructor in charge. Fifteen hours of credit will be certified for general practitioners who desire this, and inquiries concerning the course should be directed to the Dean, University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Texas Medical Center, Houston 25.

Southwestern Medical School, Dallas—Courses on internal medicine (metabolism and endocrinology), surgery (the gastrointestinal tract), obstetrics and gynecology, and pulmonary diseases will be offered at the University of Texas Southwestern Medical School during 1957-1958. Ward classes, which consist of one afternoon weekly throughout the year, will be conducted in pediatrics, cardiology, metabolic diseases, pulmonary diseases, and psychiatry. For further information and applications, write Dr. John S. Chapman, Assistant Dean for Postgraduate Education, 5323 Harry Hines Boulevard, Dallas 19.

University of Texas Medical Branch

Dr. Walter O. Klingman, formerly professor of neurology and psychiatry at the University of Virginia, now is professor of neurology at the University of Texas Medical Branch. The new chairman of the Department of Bacteriology is Dr. Willard F. Verwey, formerly director of bacteriological research for Sharp and Dohme Laboratories, Philadelphia.

Drs. Arild Hansen and Theodore Panos gave a report on essential fatty acids at the International Congress of Biochemistry at Oxford in July. They traveled on to Paris to attend the International Congress of Nutrition, and planned to spend a few weeks in Greece. Other travelers in Europe are Dr. and Mrs. Sam R. Snodgrass.

Baylor University College of Medicine

The National Foundation for Infantile Paralysis has awarded a $16,808 grant to Baylor University College of Medicine, Houston, for study of the cause of upsets in metabolism observed among paralyzed poliomyelitis patients.

Dr. Joseph H. Gast, professor of biochemistry at Baylor University College of Medicine, Houston, received the Ernst Bischoff Award for 1957; it is given annually to a person who has distinguished himself by achievement and devotion and has helped solve the chemical problems which arise daily in the practice of medical arts. The award was made in New York in September at the time of the American Chemical Society meetings.

MEMORIAL LIBRARY

MEDICAL ECONOMICS BIBLIOGRAPHIES

III. Medical Fees

If medical fees of today seem outrageous, compare them with these phenomenal fees of the eighth century. Gabriel Batischua received from Harum al-Rashid $1,500 a year "for bleeding and purging the Commander of the Faithful" plus a monthly salary of $2,500 and a New Year's purse of $6,250. He later received $125,000 to heal Al-Meismun (possibly the largest fee on record). Another Arabian, Abu Nasr, received more than $60,000 for curing one of the Caliphs of stone.*

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Gifts to the Library

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Dr. Josephine Dunlop, Austin, 6 journals.
Dr. Lee E. Edens, Austin, 60 journals.
Dr. James M. Graham, Austin, 66 journals.
Dr. J. O. S. Holt, Jr., Dallas, 2 tape recordings.
Dr. F. T. McIntire, San Angelo, 62 journals.
Mrs. Walter McNeill, Austin, 5 books.
Philip R. Overton, Austin, 8 journals.
Dr. A. D. Pattillo, Austin, 41 journals.
Dr. Nelson L. Schiller, Austin, 47 journals; 30 reprints.
Dr. Claude A. Selby, Sinton, 555 journals.
Dr. Howard O. Smith, Marlin, 169 journals; 11 books; reprints.
Dr. B. O. White, Austin, 23 journals.

★ Motion Pictures

Health Careers

Black and white, sound, 13 minutes, cleared for television showing.

This film introduces its audience to more than 30 health workers. It opens the door on typical health services—the places where these and other health workers do their actual jobs. But the film is designed only as a first quick sampling—a question raiser. The Health Careers Guidebook, to which the film is a companion-piece, covers these and many other career opportunities throughout the health field—156 all told!

None for the Road

Black and white, sound, 15 minutes.

Produced in collaboration with the Yale Center of Alcoholic Studies, this film deals with the vital problem of teenage drinking and driving by dramatizing the story of a teenage group that includes a nondrinker, a moderate drinker, and a heavy drinker, stressing the fact that alcohol in *any* amount is dangerous for the auto driver. (Young America Films, Inc.)

★ Books

BOOK NOTES

Chemosurgery in Cancer, Gangrene and Infections

FREDERIC E. MOHS, M.D., Associate Professor of Chemosurgery, Department of Surgery, University of Wisconsin Medical School, Madison. 305 pages. $13.50. Springfield, Ill., Charles C Thomas, 1956.

This remarkable book was not published prematurely, for the author is acutely aware of the history of this type of treatment as is indicated in his introductory statements of acknowledgment. The author is a man of vision and ability who worked out a solution to the advancement of this modality through cooperative effort between the departments of surgery and dermatology extending over a period of 20 years. Dr. Mohs has set a pattern of scientific accuracy and completeness in his work which has gained respect and admiration throughout the world.

The modalities used require considerable clinical training and experience, and without adequate and skillful guidance in the learning of the techniques employed, one could get into serious trouble.

The removal of lesions by these modalities is an important addition to our armamentarium, not only for the control of malignant lesions but also for selected cases of gangrene and infections. However, only when one has been well indoctrinated in the utilization of these methods should this mode of treatment be undertaken.

The material is well presented and illustrated and is recommended reading for anyone who has to do with the treatment of malignant disease.

—Joe C. Rude, M.D., Austin.

Christopher's Textbook of Surgery

LOYAL DAVIS, M.D., Chairman of the Department of Surgery, Northwestern University Medical School, Ed. ed. 6. 1484 pages. Philadelphia, W. B. Saunders, 1956.

The preceding five editions of this textbook over the past 20 years have had as their purpose the presentation of authoritative articles by experienced teachers on specific topics of interest in surgery. This aim of Dr. Frederick Christopher has been maintained by Dr. Davis. The editor has surrounded himself with 86 distinguished contributors in preparing the new edition. The text reflects their clinical insight, their experience and skill, and conclusions. An excellent review of the history of surgery is the opening chapter, and the final chapter sums up the qualifications of a surgeon.

The Official American Medical Association Book of Health

W. W. BAUER, M.D., chief editor, *Today's Health*, Ed. 320 pages. Dell First Edition, New York, Dell Publishing Company, 1956.

Notes on Atomic Energy for Medical Officers

Royal Naval Medical School, Alverstoke, Hampshire, England. 169 pages. $4.75. New York, Philosophical Library, 1956.

Muscle Relaxants in Anesthesiology

FRANCES F. FOLDES, M.D., Director, Department of Anesthesia, Mercy Hospital; Associate Professor of Anesthesiology, University of Pittsburgh, School of Medicine, Pittsburgh, Pa. 210 pages. $5.50. Springfield, Ill., Charles C Thomas, Publisher, 1957.

This monograph in the Bannerstone Division of American Lectures in Anesthesiology maintains rather well the general level of excellence of its predecessors in this series. Dr. Foldes first presents an excellent resume of the known history, chemistry, physiology, action, and pharmacology of the muscle relaxants. He then proceeds to a discussion of their relative clinical values and describes the standard techniques for their utilization in anesthesiology per se as well as in general medical diagnosis and therapy.

This volume is extremely well documented with more than 400 references. This makes it of unusual value to the research worker or student but by the same token makes it just a little burdensome to the average clinical reader. The discussion of the use of succinylcholine is the best part of this work and reflects Dr. Foldes' obvious preference for this agent. The author's stress of the inherent safety in assisted respiration as contrasted to controlled (apneic) respiration is to be genuinely commended. It was somewhat surprising to this reviewer, however, to find that the importance of a complete knowledge of "classical" agents and techniques was not stressed as a mandatory prerequisite to the orderly and rational usage of muscle relaxants as adjuvants to the artistic and scientific conduct of modern anesthesia. Without this basic knowledge the present day anesthesiologist may find himself in a position best summed up by an elderly East Texas general practitioner. This physician was asked to comment on an anesthesia death presented for discussion at hospital staff conference. The old gentleman arose, scratched his head thoughtfully, and then grudgingly said: "It appears to me that this patient had too much of something." Present day polypharmacy has its merits but must be based on sound pharmacology to govern the route, dosage, and timing of administration of any and all agents used.

This volume is clearly printed and easily read. Its main drawback is the somewhat cumbersome plethora of bibliographical references. There are some seven printing errors, but these are of only minor importance. Dr. Foldes' book can be recommended as a useful addition to all institutional and research libraries as well as to the personal libraries of physicians who administer or are interested in the administration of these extraordinarily useful but simultaneously lethal drugs—the muscle relaxants.

—James S. Reitman, M.D., Laredo.

Gynecologic Therapy

WILLIAM BICKERS, M.D., Attending Gynecologist to Richmond Memorial, Retreat for the Sick, Sheltering Arms, Richmond Community and Evangeline Booth Hospitals, Richmond, Va. 158 pages. $4.25. Springfield, Ill., Charles C Thomas, Publisher, 1957.

As indicated in the title, this book is a work emphasizing treatment and management of virtually every gynecological problem which might be encountered. It is presented in a very concise and succinct form. For the most part, the portions devoted to description, pathology, and etiology in each section are held to a minimum. It is not a textbook on gynecology and obviously was not intended as such. There are no illustrations, but if this is a disadvantage, it is offset by the fact that there are neither graphs, charts, nor statistics.

The subject matter is divided into chapters on an anatomical basis except for the latter chapters, which are devoted to various specific conditions seen frequently enough to warrant individual discussion. This follows a classical pattern for books on this subject.

The first chapter deals with the gynecopathy of the vulva and introitus. The general format of the chapters that follow is set here in that more emphasis is placed on treatments and medical regimens rather than on techniques of surgery. If the treatment is surgical, this is often indicated in one word —*excision.*

The section devoted to the cervix is particularly comprehensive. Cytological diagnosis by Papanicolaou technique is emphasized as a valuable screening method. Stress is placed on irradiation as the treatment of choice for most cases of epidermoid carcinoma of the cervix.

The chapter on leukorrhea is interesting and informative. Although the diagnosis and treatment of Trichomonas vaginalis vaginitis is covered rather completely, especially in the relative length of this section, there is no mention of the efficacy of oral therapy, that is, Tritheon tablets for this condition.

The final chapter, appropriately, is called "Menopause and the Climacteric." The rationale of endocrine therapy is discussed. Particular attention is directed to the use of estrogen-androgen combinations for the relief of vasomotor symptoms. Suggested dosages for several preparations are given.

The material is well arranged, and the print is large and well spaced; consequently, information is available with a minimum expenditure of time and effort. It is the reviewer's opinion that the book was written primarily for the general practitioner to use as a reasonably current treatment guide although there is no preface or introduction to convey this thought.

—M. Graham Bolton, M.D., Hempstead.

Practical Pediatric Dermatology

MORRIS LEIDER, M.D., Associate Professor of Dermatology and Syphilology, New York University Post-Graduate Medical School. 433 pages. $10.50. St. Louis, C. V. Mosby Company, 1956.

This book, written by a dermatologist about infants and children, covers the field more thoroughly and explicitly than any similar text I have examined. It is certainly not a rehash of old texts; there is hardly a wasted word.

In the preface the author emphasizes that cutaneous conditions play a large part in the office and hospital practice of pediatrics. Throughout the treatise he makes the point that foods play little part in the dermatological problems of infants and children. This is a good point and has long been known by dermatologists; however, it seems to be a fetish of the pediatricians and general practitioners to juggle dietary ingredients furiously in all skin derangements.

The organization of this book is excellent. First, it presents the usual basic science of infant skin and the principles of diagnosis and treatment. Then, it goes into the various diseases as to their known causes, including the cutaneous manifestations of internal diseases. A chapter is given to congenital and hereditary diseases, and another to important dermatoses not etiologically classifiable. Also shown are many interesting charts and tables of miscellaneous conditions and their salient facts. Finally, there is a glossary of common techniques and lay words and phrases peculiar to pediatric dermatology.

In the "basic science" chapter is a glossary of terms and phrases used in dermatohistiopathology. This would be of

much help to the nondermatologist in interpreting pathological diagnoses; these tables simplify the organization of the lesions to a pattern of disease. Of interest is one table showing the types of disease peculiar to different portions of the body. This chapter also includes a list of common laboratory procedures of dermatological importance.

The chapter on dermatological therapy is excellent and up-to-date; the latest as well as the time-proven prescriptions and drugs are given for different stages in the morphological picture of cutaneous derangements. These are referred to throughout the book by number. For the nondermatologist this should prove an invaluable source of medications for any type of disease seen. Explanatory pictures in black and white show typical cases of common diseases.

The most interesting chapter is the one on allergic mechanisms. In a few pages Dr. Leider explains the allergy of disease better than I have seen in many entire books on dermatologic allergy. Given these allergic mechanisms, the explanation of many diseases follows in a reasonable manner. Only a few lines are devoted to syphilis, though most dermatology texts contain chapters on the subject.

This book should be an easily understood and authoritative reference for any practitioner treating infants and children.

—Bedford F. Pace, M.D., Beaumont.

Electrocardiography; Fundamental And Clinical Application

LOUIS WOLFF, M.D., Visiting Physician, Consultant in Cardiology and Chief of the Electrocardiographic Laboratory, Beth Israel Hospital; Assistant Clinical Professor of Medicine, Harvard Medical School. ed. 2. 342 pages. Philadelphia, W. B. Saunders Company, 1956.

This publication was not intended to be a comprehensive study on the subject of electrocardiography. The author had in mind a brief, concise, to the point discussion giving the reader the fundamentals and the most practical clinical aspects of electrocardiography. The medical student, the intern, and the general practitioner will find this book well suited to their needs.

The subject of vectorial interpretation has been touched upon briefly but has been discussed enough to prepare the way in vectorcardiography for those who desire to work in this field. The important field of congenital heart disease is not discussed. The addition of the section on the arrhythmias was a necessary improvement and adds much to the usefulness of the book. The subject of coronary heart disease has been well presented with a large number of tracings described and interpreted.

The volume should serve as a useful source of information to the practicing physician who wishes to learn electrocardiography but does not aspire to become a specialist in the field.

—Thomas R. Jones, M.D., Jasper.

Fluid Balance Handbook for Practitioners

WILLIAM D. SNIVELY, JR., M.D., and MICHAEL J. SWEENEY, M.D., Attending Physicians, Evansville Child Health Clinics; Staff Member, St. Mary's Hospital; Medical Department, Mead Johnson & Company. 326 pages. $6.75. Springfield, Ill., Charles C Thomas, Publisher, 1956.

So little is understood about fluid balance and electrolytic action by the practicing physician that the authors have written a handbook for a better understanding which is concise but very thorough.

The text is divided into component parts beginning with the body fluids and their origin. These components are linked with the next part, clinical diagnosis, which deals with specific fluid imbalances of various types, changes in extracellular fluid properties and position, and the nutritional status of the body. The changes in properties, position, and nutritional status of extracellular fluid under therapy are further divided into balanced solutions, replacement solutions, fluid shift occurrence, and nutritional deficit. The illustrations and plates are excellent.

The book presents neither new concepts nor original investigations. An attempt is made to avail practicing physicians of the new advances and contributions made by outstanding clinicians and investigators in the field of fluid therapy.

The authors and publisher have done a magnificent piece of work. The text contains a wealth of material which cannot be recommended too highly. All physicians, general or highly specialized in their fields, should find this a valuable storehouse of information.

—A. W. Brazda, M.D., Ranger.

Coronary Heart Disease—Angina Pectoris; Myocardial Infarction

MILTON PLOTZ, M.D., F.A.C.P., Clinical Associate Professor of Medicine, State University of New York, Medical Center at New York. 353 pages. $12. New York, Hoeber-Harper, 1957.

Coronary arterial disease is one of the most important and human of all illnesses. It never occurs in other vertebrates except under unusual circumstances and is unknown even among the primitive races of man. Dr. Plotz gives the first full scale consideration of coronary disease in English in many years. It is addressed to both general practitioners and specialists. This is a meticulous treatise with multitudinous reference on every phase of the disease as expounded in recent years. Controversial subjects are treated in a scientific, philosophical manner with a maximum of proved facts and a minimum of conjecture.

From the first chapter, which introduces the subject and discusses current concepts of coronary circulation, the whole book is informative. The first four chapters deal with etiology from various aspects and statistics; the fifth relates to tobacco; the sixth chapter concerns pathology and pathogenesis; the seventh, eighth, and ninth chapters give a comprehensive discussion of clinical aspects, including complications.

The section on electrocardiography is complete but does not replace basic fundamentals as found in textbooks.

The next nine chapters deal with newer diagnostic techniques and methods of therapy from ballistocardiography to surgery, anticoagulants, and diet.

A valuable part of this book is the last chapter devoted to the medicolegal aspects of coronary disease which is discussed fully with many case histories.

The subject is completely presented in a manner acceptable to beginner, general practitioner, and specialist alike.

—M. K. Patteson, M.D., Lampasas.

Clinical Recognition and Management of Disturbances of Body Fluids

JOHN H. BLAND, M.D., Associate Professor of Medicine, University of Vermont College of Medicine. ed. 2. 522 pages. Philadelphia, W. B. Saunders Company, 1956.

This work performs two real services: (1) an understandable conceptual framework is presented which can help the practitioner evaluate electrolyte abnormalities and (2) correlations between signs and symptoms and various electrolyte disturbances are elucidated. Most chapters consist of a self-contained discussion of one clinical condition. This enhances the book's value as a reference work but engulfs the cover-to-cover reader in tedious repetition.

The clinical discussions are notably effective and concise and should help dissipate the enervating state of awe in which electrolyte problems are sometimes approached. Good discussions of the buffering action of hemoglobin and the "chloride shift" and the hypochloremic alkalosis of potassium deficiency are given. The therapeutic recommendations are en-

lightened and conservative with useful hints about avoiding over-treatment. The preeminence that clinical evaluation can and must hold over mere laboratory reports is emphasized, and trade names are given when indicated.

It is doubtful that one can understand hydrogen ion control without considering the law of mass action and the concept of chemical equilibrium which it expresses. Dr. Bland's failure to do so has led him to such indefensible generalizations as that the kidney controls the serum bicarbonate by controlling the amount of bicarbonate excreted (page 75). In fact, bicarbonate is one of the few constituents of blood which the kidney cannot possibly directly alter. Such defects so regularly bemuddle the theoretical discussions of hydrogen ion control as to render them more confusing than illuminating. The Henderson-Hasselbalch equation which is used in this work is merely the appropriate mass action equation expressed in logarithms and is no simplification. Accepted ionic concepts and notations are not always used, acidosis is never defined, and the vast differences between the precisely understood chemical compensatory systems and the poorly understood endothermic biological compensatory mechanisms are never clearly delineated. After rightly condemning any implication that cations are basic, the author proceeds to endow anions with acidic properties—a laxity of no less magnitude. Several errors should have been corrected in proof; for example, on page xiv PO=4 is defined as "the anion sulfate" and ammonia is repeatedly printed as (NH_3+).

This book can be recommended unreservedly as a reference work for all practitioners who may treat the seriously ill, but it cannot be so recommended to students of "acid-base balance."

—Eck G. Prud'homme, M.D., Fort Worth.

Ionizing Radiations and Cell Metabolism

Ciba Foundation Symposium, edited by G. E. W. WOLSTENHOLME and C. M. O'CONNOR. 318 pages. $8. Boston, Little Brown and Company, 1956.

This book is the account of 18 concise reports of progress and new discoveries in the field of radiation and cell metabolism by the most outstanding workers in the subject.

The most exciting of these reports and also the one with the most relevance to clinicians was the chapter by Barnes and Loutit (Harwell). Briefly, these workers showed that following a dose of radiation which destroyed most of the bone marrow of the mouse, intravenous injections of heterologous bone marrow (rat) resulted in colonization of the mouse marrow by the rat cells. The colonization so far has proved to be permanent, and the lethality of the dose was markedly reduced by this treatment. This work has been proved by actual chromosome counts, and the results have been confirmed by other laboratories (Oak Ridge). The obvious suggestion was offered that atempts should be made to treat experimental leukemia with this method. The results of this work no doubt will prove to be far-reaching.

Other excellent sections were written by Dale, Krebs, Laser, and Hollaender. This book can be highly recommended to all of those people who are engaged in radiation research, not only for its clear exposition of some difficult subjects, but for the lively discussions. Clinicians will find several readable and informative chapters.

—Clyde M. Williams, M.D., Austin.

Pediatric Cardiology

ALEXANDER S. NADAS, M.D., F.A.A.P., Assistant Clinical Professor of Pediatrics, Harvard Medical School; Physician, Sharon Cardiovascular Unit, Children's Medical Center, Boston. 587 pages. $12. Philadelphia, W. B. Saunders Company, 1957.

Dr. Nadas states this volume is intended to be "a handbook for the pediatrician, the general physician, and the medical student." It would be fair to say that his work is as helpful in pediatric heart disease as Wintrobe's "Hematology" in blood disease. Clinical material from the Children's Medical Center of Boston forms the basis for his observation. The literature has been thoroughly culled, and many isolated facts are compared with his own experiences and then incorporated or discarded.

The book is divided into four parts: "The Tools of Diagnosis" in which history, physical examination, radiology, electrocardiography, phonocardiography, catheterization, and angiocardiography are discussed; "Acquired Heart Disease," including rheumatic fever, endocarditis, arrhythmias, myocardial disease, pericardial disease, and congestive failure; "Congenital Heart Disease," with physiological and clinical presentation; "Anesthesia," a final chapter prepared by Robert M. Smith, chief of anesthesia, Children's Medical Center, Boston.

For the practicing physician the chapters on electrocardiography, arrhythmias, and myocardial disease, and the excellent discussion of the differential points of the more common congenital lesions are most enlightening. Dr. Nadas writes clearly and with humor. His discussions of physiology are good, but his descriptions of clinical entities and differential diagnosis make the book outstanding.

—Myron M. Nichols, M.D., Midland.

BOOKS NEWLY ACQUIRED

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Himwich, Harold E.: *Alcoholism,* Washington, D. C., American Association for the Advancement of Science, 1957.

Himwich, Harold E.: *Tranquilizing Drugs,* Washington, D. C., American Association for the Advancement of Science, 1957.

Kline, Nathan S.: *Psychopharmacology,* Washington, D. C., American Association for the Advancement of Science, 1956.

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Malcolm, John Erskine: *Blood Pressure Sounds and Their Meanings,* Springfield, Ill., Charles C Thomas, 1957.

Northrup, Eric: *Science Looks at Smoking,* New York, Coward-McCann, Inc., 1957.

Pascher, Frances: *Dermatologic Formulary,* New York, Hoeber-Harper, 1957.

Pitkin, Dorothy: *And Live Alone,* New York, Pantheon Books, Inc., 1957.

Schnitzer, Robert J., and Grunberg, Emanuel: *Drug Resistance of Microorganisms,* New York, Academic Press, Inc., 1957.

Stamm, T. T.: *Foot Troubles,* New York, Philosophical Library, 1957.

Weiss, Edward, and English, O. Spurgeon: *Psychosomatic Medicine,* Philadelphia, W. B. Saunders, 1957.

Wolstenholme, G. E. W., and O'Connor, Cecilia M.: Ciba Foundation Colloquia on Aging, Vol. 3, Boston, Little, Brown & Co., 1957.

Year Book of Endocrinology, 1956-1957, Chicago, Year Book Publishers, 1957.

ORGANIZATION SECTION

★ American Medical Association

AMA Public Relations Institute

Two Texans participated in the Public Relations Institute sponsored by the American Medical Association August 28-29 in Chicago. Dr. Thomas L. Royce, Houston, took part in a discussion on "Problems of Science Writers and the Working Press in Covering Medical Stories." Charles L. Collum, Jr., Austin, Executive Secretary of the Travis County Medical Society, entered the discussion on "County Societies with Executive Secretaries."

C. Lincoln Williston, Executive Secretary of the Texas Medical Association, Austin, and Bill Robertson, Coordinator of Public Relations and Advertising, also attended the meeting.

The Institute is presented as a service to state and county medical societies. It is designed for representatives of these societies and their auxiliaries, for medical school public relations personnel, and for others working in the field of medical public relations. Some of the topics covered in the meeting were "Problems Involving Release of Stories by Medical Schools and Pharmaceutical Industries," "Large State Societies," "Small State Societies," "Counties Without Executive Secretaries," "Grievance Committee Reevaluation," and "Public Relations Problems in the Socioeconomic Legislative Fields."

Nutrition in Pregnancy

The American Medical Association's Council on Foods and Nutrition will sponsor a symposium October 11 on nutrition in pregnancy. It will be held at the University of Missouri Medical Center, Columbia, and will be moderated by Dr. Robert L. Jackson, professor and chairman of the Department of Pediatrics there. Subjects will include "Influence of Maternal Nutritional Level on the Fetus and Infant," "Metabolic and Biochemical Changes in Normal Pregnancy," "Importance of Nutritional State of Mother Prior to Conception," "Production of Congenital Malformations by Maternal Dietary Deficiencies, Experiments, and Interpretations," "Effect of the Reproductive Cycle on Nutritional Status and Requirements," and "Dietary Habits During Pregnancy."

Details of the meeting may be obtained from Philip L. White, Sc.D., Secretary, Council on Foods and Nutrition, 535 North Dearborn, Chicago 10.

Broadcasters, Doctors, Sponsor Conference

The medical profession and the broadcasting industry have announced plans for a fall conference on utilization of local radio and television time by medical and voluntary health organizations. The two-day meeting, to be sponsored jointly by the American Medical Association and the National Association of Radio and Television Broadcasters, is set for November 7-8 in Chicago.

Public interest programs involving medical subjects are appearing more and more frequently on radio and television, and broadcasters and physicians alike are anxious for these programs to be interesting and factually correct, those planning the conference emphasize. Information concerning the meeting can be obtained from the American Medical Association, 535 North Dearborn, Chicago 10.

AMA Plans Rural Health Meeting

How to develop more effective rural health programs will be the chief topic of concern at the American Medical Association's second study conference October 4 and 5 for chairmen and members of state rural health committees. Sponsored by the Council on Rural Health, of which Dr. Allen T. Stewart, Lubbock, is a member, the conference will be held at Purdue University, Lafayette, Ind.

The opening session will be devoted to a discussion of organizational techniques of statewide rural health committees. Another session will feature representatives of leading farm organizations outlining their health programs. Following this latter presentation will be a discussion of ways that the medical profession and agricultural groups can best work together in developing better health programs.

Reservations for this meeting may be sent directly to the Students Union, Purdue University, Lafayette, Ind.

★ Texas Medical Association

PUBLIC RELATIONS, INDOCTRINATION, AND OFFICIAL BUSINESS

A busy place was the Texas Medical Association's headquarters building in Austin the week end of September 6-8, when the third annual Public Relations Conference, the second Indoctrination Program, and the fall meeting of the Executive Council were held. A record number of 375 registered for week-end activities, including sessions of 30 boards, councils, and committees of the Association.

Meeting jointly, those attending the Public Relations Conference and the Indoctrination Program heard talks by

Doctors leave meetings upstairs to find a barbecue dinner awaiting them.

three guest speakers, Leo E. Brown of Chicago, Dan J. Forrestal of St. Louis, and Melvin T. Munn of Dallas; saw presentations made to the General Practitioner of the Year from Texas, Dr. Thomas Ford Bryan of Dublin, by both the Texas Medical Association and the Southern Medical Association; honored Dr. F. J. L. Blasingame of Wharton, new general manager-to-be of the American Medical Association; and were guests of the Texas Medical Association for luncheon at the headquarters building and of the Charles O. Finley Company for a hospitality hour at the Driskill Hotel.

The Public Relations Conference, presided over by Dr. Joe R. Donaldson of Pampa, included two panel discussions, on "Basic PR Projects Which Every County Medical Society Should Have" and "What's New in County Society PR?" The Indoctrination Program, with Dr. David W. Carter, Jr. of Dallas presiding, consisted of a series of talks on matters of interest to the 120 new and transfer members attending and a film on the AMA. The Executive Council was in session Sunday morning to hear reports from the 30 boards, councils, and committees which met Friday evening, during the day Saturday, or early Sunday morning; Dr. Denton Kerr of Houston presided.

More detailed information about each segment of the program follows.

Guest Presentations

Three guest speakers addressed the Public Relations Conference and the Indoctrination Program September 7. They are Leo E. Brown, Chicago, executive assistant to the general manager in charge of public relations, American Medical Association; Dan J. Forrestal, St. Louis, president, Public Relations Society of America; and Melvin T. Munn, Dallas, director of public relations, Blue Cross-Blue Shield of Texas.

THE BELL TOLLS

Bells have been intimately associated with many historical events over the years, and today the bells of medical public relations are tingling in many areas, stated Leo E. Brown of Chicago. All too often the "bell tolls" have been used to sound an alarm when they might better have been used to announce a new service or benefit to the American public. In looking back over the past 6 years, Mr. Brown pointed out that in 1951 it used to be a full time job just answering the complaint letters directed to the AMA. But most frustrating of all was the fact that in many instances they could not be answered with any degree of satisfaction; for example, a complaint of inability to get a doctor in an emergency or at night. Today there are more than 800 emergency telephone answering services of county medical societies throughout the country, and such complaints are rare. Similarly, complaints about fees and quality of care now may be answered by referring the complainant to the local grievance committee. Mr. Brown continued:

> The blame for the shortage of doctors in rural areas can be met by reviewing the activities of our rural health committees in which Texas has been a leader.
>
> The charge that doctors are shirking their community and citizenship responsibilities can now be easily met by enumerating hundreds of public service projects sponsored by county medical societies across the nation.
>
> The accusation that doctors hide behind their alleged free services to the indigent in refusing to contribute to worth-while causes can be met head on. We need only to cite their contributions to hospital building programs, community chests and the 88,000 physicians who contributed over three million dollars to medical education last year.
>
> This is "one side of the coin" in which many alarming situations have been transformed into chimes.

The other side of the coin is the membership public. The medical profession is continuously informed how the AMA and state and county medical societies serve their members, and today the requests and suggestions from members can be answered promptly. Pamphlets, exhibits, films, radio transcriptions, television programs, or literature on a variety of subjects are provided.

Doctors have a public relations job to do, and they are making progress in various areas. They are helping to organize medical assistants societies, are developing liaison with the schools through high school sports injury clinics, are assuming their rightful responsibility in continuing the poliomyelitis inoculation for the public and also the influenza immunization, are planning further liaison with the National Association of Radio and Television Broadcasters

Speakers for the Public Relations Conference were Dan J. Forrestal, St. Louis; Melvin T. Munn, Dallas; and Leo E. Brown, Chicago, from left to right.

by means of a national conference on television as used locally, are developing a cooperative program with various groups concerning commercials on television for proprietary medicines, and are interested in defeating legislation which would include physicians under social security and would expand hospital benefits under social security. Most of the areas are positive and will result in good public relations.

However, all these efforts are like a "sounding brass or tinkling cymbal" if the individual physician fails to practice good public relations in the handling of each patient.

WHAT IMPRESSION DO WE MAKE?

PR = x + y, where *PR* means public relations or the impression made by a person or group, *x* means the inherent value or conduct of the person or group, and *y* means the interpretation of that conduct or inherent value. This formula is always true, Dan J. Forrestal of St. Louis, manager of public relations for the Monsanto Chemical Company, declared. The impression which an association or its individual members make on the public will be favorable only insofar as the association and its members are basically worth while and the message about this worthiness is told appropriately.

Public relations is not for specialists alone to determine; many good public relations values can be obtained either at no cost or low cost, for they are the total of a series of impressions that may be obtained through such everyday means as thoughtful telephone practices, pleasing appearance of oneself and one's surroundings, responsible civic action, and cooperative press relations. In this latter area, Mr. Forrestal emphasized the "thunderous impact of silence" which sometimes is overlooked.

"Through our eyes and ears, we can learn so much, but through our mouths we can learn so little," he reminded, recommending right action and careful communication in efforts to put across desired messages and impressions.

Mr. Forrestal cited the profession of public relations as the fastest growing profession in America. The Public Relations Society of America, only 10 years old, has 2,500 members, whereas the American Medical Association, 110 years old, has 160,000. Public relations practitioners, now experiencing some of the same problems which beset doctors when their organizations were young, have much to learn from the medical profession in the field of ethics and professional standards, he said.

SOMETHING FOR THE FOLKS

Communication with any audience—individual or group—is most effective when one has something for that audience, for motivation comes primarily through self interest, reminded Melvin T. Munn of Dallas.

Everything the doctor says, writes, or does; the talent, integrity, and understanding that he brings to every patient-case; his participation in the affairs of community, state, and nation; his financial as well as professional relationships with patients, hospitals, and community; and his relations with professional bodies—all these create the composite picture of his person and character.

Certain objectives appropriate for each doctor include these: (1) to conduct an honest and professional relationship with his patients and community; (2) to exceed every minimum requirement of the law and professional code decreed for his guidance; (3) to contribute a portion of his means to the worthy community projects of service; (4) to be a good friend to his fellow man; (5) to be a good citizen; and (6) to keep the community informed on the aims and objectives of medicine and its place in the lives of his fellow citizens.

Although distribution of time by the physician is a problem, almost every other business or professional person has much the same difficulty. Bound only by the responsibility the doctor holds to the sick and the injured, he must assume equal obligation to the general affairs of his community if he is to gain the respect, trust, and support of the many other divisions of society in which he moves.

Several exhibits added interest to the meetings. Reed Giese, Austin, and Charles O. Finley, Chicago, administrator of the disability insurance program sponsored by the Texas Medical Association, discuss their exhibit with Dr. Robert D. Moreton, Fort Worth.

It is the nature of man that he should be suspicious and questioning of those things that he does not understand. Everything the doctor can do to lift the mantle of mysticism from the practice of his art and to explain the reasons for actions often criticized by the public will be a step in the proper direction.

Although the doctor needs to be aware of the factors which make for good will and to improve his techniques in that line, the truth is that most of us "don't public relate as well as we know how."

Public Relations Conference

Dr. Joe R. Donaldson, Pampa, chairman of the Committee on Public Relations, presided over the third annual Public Relations Conference Saturday, September 7. He introduced Dr. Glenn D. Carlson, Dallas, who served as moderator of the morning discussion on "Basic PR Projects Which Every County Medical Society Should Have" and Dr. Van D. Goodall, Clifton, and Dr. Thomas L. Royce, Houston, who coordinated the afternoon panel on "What's New in County Society PR?"

BASIC PR PROJECTS

Public Grievance Committees.—Dr. R. Mayo Tenery, Waxahachie, pointed out that the Association's Constitution and By-Laws requires each county medical society to have

a public grievance committee. The committee itself has no disciplinary powers; in any case the committee feels, after thorough investigation, is a breech of medical ethics, the offending physician should be prosecuted before the board of censors. The committee also investigates complaints against physicians when there has not been a violation of medical ethics. Such cases usually arise out of misunderstanding, and both sides must be heard fully. The majority of complaints will concern fees, with the second most frequent complaint being improper medical treatment. Another is the failure of a physician to come when called at night.

The grievance committee should answer a complaint promptly by letter stating that the case is to be investigated. Hearings should be held as soon as possible after the complaint has been filed. In cases not involving a violation of medical ethics, both the complainant and the physician should be informed by letter of the decision reached; verbal explanations should be made. An appeal may be made by either party to the Councilor of the district or the Board of Councilors. Frequently satisfactory disposition of a case is possible by personal discussion with the parties involved, thereby avoiding the need for formal investigation.

Dr. Blasingame accepts from Dr. Rouse a letter case filled with letters expressing good wishes from friends throughout the state.

Emergency Medical Care.—Emergency medical care is a problem for the local county medical societies, which must supply a doctor in an emergency, Dr. Charles R. Younkin, Houston, stated. To be effective the society must have first an active panel to cover the calls, second a central receiving area for the calls, and third a means of dispensing information about it to the public. Dr. Younkin pointed out that about 40 calls a month have been average in Harris County since the inception of the emergency call system. There are about 150 doctors on the list in all fields of medical practice. Only those asking to be on the list are called in Harris County (new members are informed of the system and invited to be placed on the list, but not obligated), although other societies have different systems, some on a semivoluntary basis. He personally favors a compulsory system, putting all men in practice less than 2 years on the panel. Often a county medical society serves as its own clearinghouse for emergency calls. In Harris County a doctor is contacted if he refuses three calls, and his name dropped from the list if necessary. Newcomers to the county, Dr. Younkin said, are advised of the service by the Welcome Wagon and also are advised to get a family doctor.

Medical Economics and Medical Service: Promotion of Voluntary Health Insurance and Achieving Greater Understanding of the Cost of Medical Care.—With graphs and charts, Dr. Everett C. Fox, Dallas, discussed the cost of medical care, particularly the changes from 1929 to 1955 with reference to the important contributions that have been made by voluntary health insurance. Under the consumer's price index the cost of living in general has increased from 100 to 192 during this period, medical care from 100 to 174 or an increase of 74 per cent, physicians' fees to 160 or 60 per cent, dentists to 182 or 82 per cent, and hospitals to 322. In 1930, 3.99 per cent of consumers' disposable income was spent for medical care, and in 1953 this figure had risen to 4.35 per cent, an increase of only .36 per cent in almost 25 years. In 1955, the total cost of medical care was approximately 12 billion dollars, 20 per cent of which was paid by prepaid medical insurance.

In addition to showing the inflationary trend of income and cost of living, Dr. Fox pointed out that 112 million persons have some sort of hospitalization insurance, 96 million have coverage for surgical services, and 63 million are covered for some medical care. Dr. Fox stressed the importance of physicians' having an idea of how to answer criticisms of medical costs and recommended for this purpose an address by Dr. Leonard Larson, a member of the AMA Board of Trustees, to the American Management Association, which is to be published soon in *Today's Health.*

Telling Our Story to the Public: Press, Radio, and Television.—Whether he knows it or not, every member of a county medical society is a member of its public relations committee, remarked Dr. A. Fletcher Clark, Jr., San Antonio. But committees are organized to publicize the profession's story in the press, radio, and television. The committee should be responsible for seeing what stories should be available to the public and getting them to the public. A press code is necessary for making the media aware that these articles should be before the public. A society needs a spokesman to make a news release, preferably the president or vice-president. Although doctors often hesitate to let their names be used in the press, official announcements should have official quotes, Dr. Clark indicated. He suggested that any society meeting should be publicized and new officers announced. Whether or not a society wants its own radio or television program is a local problem. Bexar County uses its sustaining television series to publicize such society programs as the emergency call system. Press rooms at medical meetings should be used more, Dr. Clark said; in addition to the usual publicity, points the society wants stressed can be mentioned by guest speakers in interviews. Special medical sections in newspapers are useful for special events, he concluded.

WHAT'S NEW IN COUNTY SOCIETY PR?

Grievance Committee Procedures.—Although the county grievance committee generally deals with formal written complaints, it can be of service to the profession by settling minor complaints offered by telephone or through letters to newspapers, Dr. M. C. Carlisle, Waco, chairman of the McLennan County Medical Society grievance committee, said.

In McLennan County, immediately after receiving a signed complaint, the grievance committee notifies the complainant

by letter that the committee will hear the case as soon as feasible and asks for a signed and witnessed authorization to examine records of any physicians or hospitals having pertinent information. The complainant is interviewed and may present witnesses before the defendant physician is called to hear the charge and present his records and witnesses. The committee then goes into executive session for discussion and voting. The complainant is notified in writing of the opinion and recommendations of the committee; the defendant also is told of the decision. If desirable, the complainant is invited to discuss the decision with some member of the committee. Except for a report to the chairman of the board of censors and the president of the county medical society, no publicity is given to the findings.

A committee of from five to seven members serving overlapping terms and representing general practitioners, surgeons, and psychiatrists among other specialties is recommended. Individual members should be well established, of integrity, courageous, and of a judicial temperament.

A grievance committee also should take action in case of complaint by a fellow physician, adverse newspaper publicity, grand jury indictment, or punitive action by the State Board of Medical Examiners.

One of the panel discussions on the Public Relations Conference.

Navarro Plan for Medical Representation in Community Affairs.—All attitudes, relationships, and services rendered by members of a county medical society, either as individuals or as a whole, should be recognized as emanating from the society as an organization, Dr. Paul H. Mitchell, Corsicana, recommended. Service can be provided through such activities as a workable emergency call system, improved service to charity patients at hospitals, adoption of uniform regulations in relation to control of epidemic and contagious diseases in the schools, and establishment of an endowment fund supported by the medical society for treatment of patients. In addition, efforts can be made to encourage participation in civic organizations—especially those which relate in any way to medical care—by physicians, not only as individuals but as members of the medical society, reflecting the considered opinion and policies of that society. These policies, of course, must be constantly reviewed and revised, with the revisions disseminated to all the membership.

Such a program of activity has been initiated by the Navarro County Medical Society with the aim of getting organizations to develop the habit of asking for the medical profession's advice on medical matters rather than coming to the doctors with a well publicized scheme in which pressure has built up for cooperation.

Science Fairs in Texas.—Five Texas high school students returned from the National Science Fair in Los Angeles this year with awards; four were from schools where fairs were sponsored by medical auxiliaries. The Woman's Auxiliary to the Texas Medical Association has been interested in such fairs since 1956, when Travis County worked on the project, Mrs. W. D. Nicholson, Freeport, chairman of the Science Fair Committee for the State Auxiliary, pointed out.

Biological, physical, and physiographical exhibits prepared by elementary, junior, and high school students are planned to encourage interest in science and mathematics as well as to show the public the accomplishments of students in these areas. Local, regional, and national fairs are held. Each county auxiliary is being invited to push this new project to help develop future leaders in the medical and other sciences.

The Auxiliary and Public Relations.—The doctor's wife is expected to be interested in the welfare of her community and to do what she can to help. Efforts in this line are being encouraged by the Woman's Auxiliary to develop good public relations, emphasized Mrs. George Herrmann, Galveston, state public relations chairman.

One project for this year is the distribution of a wallet-sized health record card on which a person may carry identification information and facts such as blood group and Rh factor, vaccinations obtained, sensitivity to drugs—all valuable in case of accident or sudden illness. A booklet with space for similar information but with room for records of illnesses and operations and designed for a whole family also is available. The cards and booklets may be obtained in quantity for distribution to patients by interested doctors from the central office of the Association without cost.

Another booklet doctors may request at little cost is a cartoon explanation of "What You Should Know About a Doctor," which is designed to create understanding and rapport between doctor and patient.

Liaison and Cooperation Between Doctors and Lawyers.—Better interprofessional relations at the grass-root level between attorneys and physicians would do much to alleviate the present areas of friction, Dr. Hal V. Norgaard of Denton told listeners. Dr. Norgaard used his own community as an illustration of splendid relationship between these professions. The medical society for several years has sponsored joint meetings with the local bar association. In addition, he mentioned other factors that have led to understanding and mutual appreciation: Approximately the same number of lawyers as doctors, the majority being less than 50 years of age, practice in Denton; most of them saw military service. Members of both organizations know each other well, professionally and socially. Doctors serve as family physicians for the lawyers, and lawyers handle legal matters for their physicians. Doctors and lawyers belong to the same service and social clubs and serve together on civic, hospital, church, and other committees.

In Denton, lawyers and doctors sometimes avoid building up suits and major differences by talking informally with each other about situations when they are first brought up and thus coming to an understanding.

Health Education Programs.—A health education course in the Jacksonville Public Schools, initiated in 1953, has increased the understanding and cooperation of patients exposed to it and has created better relations for the medical society, Dr. J. Collier Rucker stated. The course, primarily for high school grades, has consisted largely of educational films followed by discussion with the school nurse or one of the local doctors. A working understanding of anatomy and organic functions of the body, together with instruction regarding contagious diseases, immunization, emotional problems of adolescence, alcoholism, nutrition, good grooming, and posture exercises, has been included. Films on most of these subjetcs are obtainable without charge through the

Memorial Library of the Texas Medical Association, the Texas State Department of Health, or the University of Texas.

Problems encountered have resulted primarily from a crowded school schedule and lag in interest without regular stimulation by one of the local doctors. Without constant supervision and participation by doctors and dentists the course proved ineffectual.

Poison Control Center.—Prevention of poisoning by educational publicity and best possible treatment of persons poisoned not only has reduced serious illness but has created good public relations for the medical profession in Austin, where a Poison Control Center has been active since January, Dr. A. L. Exline, Jr. reported. A group of physicians, biochemists, pharmacists, research chemists, nurses, receptionists, and laymen has helped to establish the center in the local city-county hospital.

Newspaper, radio, and television publicity, declaration by the mayor of "Poison Control Week," and speakers before civic groups emphasized to mothers of preschool children the importance of preventing poisoning. At the hospital center, a reference library and file on more than 20,000 toxic products, antidotes, a laboratory set-up for toxicological analysis, and a 24 hour staff are ready for emergencies. Parents who phone are asked to call their family doctor; charity cases are handled in the emergency room at the hospital. More than 500 calls from physicians have been answered already, Dr. Exline said.

The poison control group also helped sponsor legislation to label toxic products as to content and antidotes.

Indoctrination Program

The second Indoctrination Program staged by the Texas Medical Association for provisional members, held September 7 at the headquarters building in Austin, attracted a registration of 153, of whom 120 (72 new, 48 transfer members) were eligible to receive credit for attendance. Dr. David W. Carter, Jr., Dallas, Vice-President of the Association, presided over the program. In addition to the presentations summarized hereafter, registrants heard the three guest speakers referred to on another page and saw a motion picture about the American Medical Association entitled "The Case of the Doubting Doctor."

The Texas Medical Association: An Accounting of Stewardship—What Happens to Your $50 Dues?—More than $225,000 in revenue from membership dues will come to the Texas Medical Association during the coming year, Dr. Byron York, Houston, a member of the Board of Trustees, reported. This is the largest source of funds for carrying on the work of the organization; the next largest are from advertising in the *Texas State Journal of Medicine* and from sale of booths at the annual session.

Of the $50 in dues paid by each regular member of the Association, $30 is allocated to the General Operating Fund; $15 to the Building Fund; $3 to the *Journal;* $1 to Medical Defense; and $1 to the Woman's Auxiliary. Major expenditures for general operation go to carry on the work of committees, to salaries of the central office staff, and to maintain the headquarters building. One of the largest outlays is for the Memorial Library, the services of which are available to doctors throughout the state. Another is for the annual session, the next of which will be in Houston, April 19-22, open to members without payment of a registration fee. Less than 2 per cent of the total operating budget will be spent this year for public education on legislative issues; nevertheless, the Association has an aggressive, alert program which, for example, paid dividends in the State Legislature the past spring.

The finances of the Association are in good order, Dr. York emphasized. Members having questions about expenditures or policies are invited to query the Trustees.

American Medicine: Its Objectives, Its Programs, Its Problems.—Explaining the qualifications for membership in the Texas Medical Association and its relationship to the county and national organizations, C. Lincoln Williston of Austin, Executive Secretary of the Association, pointed out that although membership is not compulsory, approximately 97 per cent of the physicians in Texas belong to their county and state societies and 94 per cent are members of the American Medical Association.

Doctors are aware of some adverse opinions about the medical profession held by the public and are attempting to create understanding about major points of dissatisfaction. For example: (1) *High cost of medical care.* Although medical care costs, like other living costs, have risen, they have not increased as rapidly as other commodities and services and the patient receives much more for his medical dollar today than ever before. Elimination or control of disease has been a major factor in adding a total of 23 years to our life expectancy since 1900. Voluntary health insurance, comparatively unknown only a few years ago, now protects 116,000,000 Americans against hospital expense, 96,000,000 against surgical expense, and 7,000,000 against major medical expense. (2) *Overcharging or unsatisfactory care.* Mediation committees are available in most medical societies to prevent and resolve misunderstandings, to clarify and adjust differences between the physician and the patient, and to assist in maintaining high standards of professional deportment. (3) *Doctor shortage.* A survey conducted by the Texas Medical Association indicates that there is no real shortage of physicians in the state, but there is maldistribution; a placement service operated by the Association helps alleviate this problem. Too, the Texas Medical Association has endorsed the erection of a fourth medical school in the state to keep the education of physicians in line with population growth.

One problem confronted by the medical profession today is the changing social concept that threatens to sweep away the present American tradition of free enterprise and with it the private practice of medicine. Already, the federal government pays for almost one-fourth of the cost of medical care. Heading the list of eligibles are 22,000,000 military veterans. With the current Selective Service procedure, the number of veterans is increasing rapidly, and if the present practice of caring for veterans with nonservice incurred disability as well as for those with service connected conditions persists, government sponsored medical care at taxpayers' expense will be an ever larger segment of the total picture. The need for individual doctors to join in action against this general tendency is great, Mr. Williston said.

Serving the Doctors of Texas.—Inviting indoctrinees to explore the headquarters building, Donald M. Anderson, Assistant Executive Secretary of the Texas Medical Association, noted that they would see in action not only the 23 staff members but some of the more than 250 physicians who, as officers and members of Association committees, work to serve the doctors of Texas. From the officers and committees come the policies that shape the Association's services.

Among these is the Memorial Library, which is circulating on a free loan basis more than 2,000 items monthly to physicians throughout the state. The *Texas State Journal of Medicine,* circulated monthly to the membership, has received commendation for its excellence. The Woman's Auxiliary renders service through its constructive programs in many fields and lends dependable support in public relations and legislative efforts. The Physicians Placement Service helps doctors to find locations and communities to find doctors, whereas a recent doctor distribution survey is

an example of the surveys and studies which are regular activities. The Association is active in staging the annual session, directing legislative communications to members, administering membership records and funds, and providing administrative and secretarial services to officers and committees. Public relations is a major activity, both internal and external.

A chief effort is to maintain liaison with county medical societies and individual doctors, partly through the *Journal* and general mailings (37 last year), but mainly through a visitation program. A variety of programs can be brought to the county societies through the visitation program, but the visiting speakers also can learn what the individual doctor is thinking on subjects of importance to the medical profession, Mr. Anderson emphasized. These ideas are brought back to the officers and committees and are used in making the Association responsive, as well as responsible, to the will of the members.

A Message from the President.—Although he addressed the Public Relations Conference as well as those present for the Indoctrination Program, Dr. Denton Kerr of Houston, President of the Association, directed his remarks primarily to the indoctrinees.

Dr. Kerr pointed out that the medical profession is beyond parallel not just in this country but in the world. He urged all doctors to assume their civic responsibilities and suggested that it is worth what it costs in time away from home and from practice for the favorable impression that will be made. New physicians should make it a point to get acquainted with the Council or in their district and should feel free to call on him at any time for advice or assistance. Take your work seriously, Dr. Kerr said, and always realize that each patient in a doctor's office is his best advertisement; although public relations men do an outstanding job in coordinating programs for the medical profession, personal contact between the patient and the doctor is the most important aspect of good public relations. The patient has confidence in his physician, and the doctor should never betray this confidence. Dr. Kerr also suggested that new doctors have frequent consultations about fees and any problems with those in the community they trust. He closed with a final word of welcome to new members, indicating that the Texas Medical Association stands ready to help and urging physicians to call on the Association at any time.

Medical Economics Considerations in the Practice of Medicine.—Dr. Harvey Renger, Hallettsville, chairman of the Council on Medical Economics, discussed insurance in relation to a doctor's practice, insurance in relation to the doctor himself, and an explanation of charges, as the three aspects of the business side of a medical practice. He suggested that a physician know the limitations of policies and that he buy his insurance to suit his needs and no more; that is, his insurance should be designed to cover 75 per cent of his income. Dr. Renger stressed the importance of physicians' discussing fees with their patients.

Voluntary Prepayment Health Insurance.—Voluntary prepayment health insurance, an important instrument in the fight against socialized medicine, had its real beginning in 1929 at Baylor Hospital in Dallas with the medical-surgical plans being added approximately 10 years later, Dr. Roy T. Lester, Dallas, medical director of Blue Cross-Blue Shield of Texas, explained. Since then, many types of plans have been offered, varying from the limited to the catastrophic and major medical plans and growing with the needs of the people.

Before buying or recommending any particular plan, a doctor should study it, as well as the organization behind it. One should know how the organization operates, its reputation, if the plan is flexible, and its limitations. In the final analysis, Dr. Lester reminded, the prepayment plan can be effective only with the cooperation of the purchasers of the insurance and the providers of services covered by it.

Medical Ethics Considerations in the Practice of Medicine.—Although a new, briefer code of ethics has been adopted by the American Medical Association, the principles contained in the older lengthy code still pertain and the decisions relative to them which have been handed down by the AMA's Judicial Council still apply, Dr. Franklin W. Yeager, Corpus Christi, chairman of the Texas Medical Association's Board of Councilors, stated. Questions of ethics which arise should be handled first on a local basis with, if necessary, appeal to the Board of Councilors on the state level. Dr. Yeager pointed out that the Councilors act as an impartial body to judge a case on its merits, its purpose being to insure fair play, justice, and protection for both patient and doctor.

Dr. Yeager recommended three things to remember to avoid trouble with medical ethics: (1) to do everything for the good of the patient, (2) in dealing with the public to say nothing about a colleague unless it can be something good, and (3) to follow the golden rule. Any physician who needs advice as to the ethics of certain action may consult with the appropriate committee of his county medical society, write or call the Councilor of his district, or write the Board of Councilors.

Coffee is served in the reading room throughout the week-end activities.

Legislative Issues of Medical Interest in Congress and the State Legislature.—Bills of medical import are introduced in considerable number in both the Legislature and the Congress, and physicians individually have a responsibility to be informed about such measures and to express their opinions about them to their legislators. So Dr. G. W. Cleveland, Austin, chairman of the Council on Medical Jurisprudence, emphasized.

Currently proposed legislation of interest on the national scene is the Jenkins-Keogh bill which would give self employed persons tax deferment for payments into approved private pension plans. Passage of such a measure is the most effective means now available to prevent physicians from being swept into the social security system, which most Texas physicians consider to be unsound economically, contrary to the individualistic point of view, and probably impractical for a profession the members of which remain in practice long past the age at which social security benefits may be drawn if one's earnings are very small.

Workmen's Compensation Laws.—An understanding of the workmen's compensation law is of primary concern to the physician who cares for patients covered under it as well as to the insurance companies that write such insurance. The first workmen's compensation act was passed in Prussia in 1838; all states in the United States have adopted such acts since 1910, with Texas having a law before World War I, Smith Pettigrew, medical coordinator of Texas Employers Insurance Association, Dallas, related.

The Texas law provides benefits to an employee injured in the course of his employment, while furthering the interests of his employer, with the injury arising out of his employment. Coverage does not occur if the injured was intoxicated at the time of injury, if he was engaged in horseplay, if he willfully injured himself, or if an act of God caused the injury. The act is inoperative unless death, loss of a specific member of the body, loss of wages, or requirement of treatment is involved. When coverage under the act is extended to an employer by an insurer, the liability of the employer is shifted to the insurer. The insurer, however, is limited by the law to specific benefits, and all policies are in a standard, prescribed form.

A doctor is expected to render emergency treatment if necessary, notify the insuring company or the insured promptly of the seriousness of the injury and establish his authority to continue treatment, provide proper medical treatment to the end of getting the injured back to work, furnish a preliminary report to the insuring company within 8 days, render periodic reports as conditions change, and advise and confer with the insuring company if a specialist or consultant is needed, Mr. Pettigrew said. It would be wise for any doctor to become acquainted with the representatives of insuring companies in his area and to confer with them about compensation cases.

Legal Aspects of Your Practice: Malpractice and How to Avoid It.—Following the recommendations made in the booklet "Facts to Protect You and Your Patient," issued by the Council on Medical Defense of the Texas Medical Association, may help the physician avoid a malpractice suit, Philip R. Overton, Austin, general counsel of the Association, suggested. He emphasized the importance of keeping accurate notes and records and of obtaining written consent for operations and other procedures. He discussed the liability of the physician for acts of an associate or an employee, consultations, fees, the care and skill legally required of a specialist, and other problems arising frequently in malpractice problems, giving illustrations of malpractice.

Executive Council Hears Committee Reports

The Executive Council of the Texas Medical Association was called into session September 8 by Dr. Denton Kerr, Houston, President. Reports of the activities of councils and committees brought to the attention of the Executive Council the work that had been done during the year, and plans for the future. Most of the reports were accepted without further discussion. The following items were called to the attention of the Council:

Board of Trustees.—Complimentary copies of a directory of the Texas Medical Association, published by Blue Cross-Blue Shield of Texas, are being mailed to each doctor. The board mentioned the diligent work of the Texas State Board of Medical Examiners in enforcing the Medical Practice Act. The staff of the *Texas State Journal of Medicine* was congratulated on the *Journal's* being selected a winner in a mid-continent regional competition conducted by the International Council of Industrial Editors. Dr. Foy Moody, Corpus Christi, and Dr. James Hallmark, Fort Worth, were appointed to the Committee on Public Relations.

Board of Councilors.—It was suggested that a copy of the Legal Code of Ethics be furnished each county society, and the interprofessional code for the medical and legal professions was approved in principle. A resolution that influenza vaccine be administered according to the established doctor-pharmacist relationship, that no patient be denied vaccine because of economic distress, and that a committee be appointed to study the influenza problem, was adopted.

Executive Secretary.—The 1960 annual session will be in Fort Worth April 9-12, and the Hotel Texas will serve as headquarters. The Travis County Medical Society was thanked for its invitation, and was encouraged to invite the Association in 1962 when the State Legislature is not in session. A total of 7,620 memberships have been processed so far this year, and there are prospects for another 150 by December 31.

Woman's Auxiliary.—Mrs. H. S. Renshaw, President of the Woman's Auxiliary to the Association, said that this year the Auxiliary is emphasizing public relations, safety, nurse recruitment, and the American Medical Education Foundation. This year, she reminded, the Auxiliary will celebrate its fortieth birthday. Mrs. John D. Gleckler, Denison, President-Elect, pledged her support of the Association when she becomes President of the Auxiliary.

Council on Medical Defense.—The malpractice incidence in Texas appears to have declined, and the council hopes that through its efforts and that of the doctors in Texas, this trend will continue.

Committee on Nuclear and Atomic Medicine.—This new committee, which had its organizational meeting, proposed the appointment of district subcommittee in nuclear medicine, publication of a directory of nuclear consultants and availability of radioisotope electronic equipment for use by the profession in the event of emergency, and a central workshop on nuclear medicine. The committee reported that continuous education through the use of scientific papers, technical papers, personal contact and consultation, exhibits, and seminar-type programs will be a necessity.

Council on Medical Jurisprudence.—No action was taken after discussion of an amendment to Article III of the Texas Constitution to increase the maximum monthly payment to needy aged, blind, and children. The council recommended that physicians oppose the Old Age Assistance Act (to be voted on in November, 1958) to provide direct or vendor payments for medical care on behalf of such recipients. Active support of the Jenkins-Keogh bill was recommended.

Council on Scientific Work.—The council recommended the following changes for the 1958 annual session: (1) eliminate Wednesday from the annual session, (2) have a general meeting luncheon on Tuesday, (3) schedule the final meeting of the House of Delegates on Tuesday afternoon, and (4) end the annual session with the President's Party Tuesday evening.

Council on Medical Economics.—At a joint meeting with the Committee to Study Contract Medicine the two most prominent cases under investigation were discussed, and it was decided to continue active work in this program until relief has been granted. H.J.R. 36, "Vendor Medical Care," was discussed, and it was decided that if this constitutional amendment is passed, the Association should exert action to have this program developed on an indemnity basis. Also, it was recommended that accidental death and dismemberment insurance be offered to the membership of the Association. Charles O. Finley was instructed to present a major hospital expense program which for a reasonable sum will allow each member of the Association to insure his entire family for $10,000 per family member.

Medical Research Foundation of Texas.—Dr. F. J. L. Blasingame was invited to summarize the objectives and program of the Medical Research Foundation of Texas. He explained that funds which should be spent on research and education in this state have been channeled elsewhere because of the failure of Texas' medical and dental schools to have the proper support, facilities, and staff. He emphasized that if money could be provided for this initial sup-

port, it could be matched many times over by industries and foundations that are ready to make contributions to medical research. He pointed out that no intensive campaign for funds is under way, only a long-time, strong program. The foundation already has applications for $131,000 from Texas medical and dental schools with research projects they consider worthy, despite the fact that applications have been accepted only since June. The Executive Council voted approval of the foundation.

Council on Medical Education and Hospitals.—A report was heard on the progress that has been made in setting up a program in state hospitals and special schools similar to that outlined by Dr. Francis J. Gerty in his report on the mental health survey in Texas. The council complimented the Private Clinics and Hospitals Association on its continued progress in attempting to secure accreditation for its member hospitals and recommended that the Texas Medical Association support effort to secure a set of realistic minimum requirements for hospitals having 50 beds or less. Also, the council complimented the Woman's Auxiliary on the nurse recruitment program. The Postgraduate School of Medicine of the University of Texas was approved.

Council on Constitution and By-Laws.—The council is concerned about the current tendency to set up numerous standing committees to consider isolated problems which are related to spheres already encompassed by existing councils or committees. A standing Committee on Public Policy is being made possible through necessary By-Laws changes.

Committee on Aging.—It was recommended that each county society form a committee on aging for the purpose of studying the local problem of the aging population. It was particularly suggested that the committee interest itself with the custodial care and nursing homes. There are plans for merging of the Texas Geriatrics Society and the Gerontology Society to be the Texas Society on Aging, with the new group to meet twice annually.

AMA Delegates.—Dr. Milford O. Rouse, Dallas, on behalf of the Texas delegation to the American Medical Association, called attention to the report on AMA activities on pages 557-558 of the July *Journal.* He invited county societies or individual physicians to communicate with the delegates regarding matters they would like carried to the AMA, called attention to the 1959 clinical session of the AMA to be held in Dallas, and encouraged the almost 400 members of the Texas Medical Association who are not members of the AMA to join.

Rules Committee.—A Rules Committee created by the House of Delegates at the 1957 session to study means of streamlining and increasing the efficiency of the procedures of the House gave a progress report in which it was indicated that action would be requested subsequently on the following points: (1) limiting the length of all oral reports; (2) eliminating seconding speeches for General Practitioner of the Year nominees; (3) keeping supplementary reports to a minimum and limiting the length of oral presentations of all committee reports; (4) submitting resolutions in time for advance study and limiting the time for oral presentation; (5) limiting debate on a given topic by one delegate; (6) improving the procedures of reference committees and clarifying their oral reports.

Committee for Liaison with State Bar of Texas.—The committee recommended adoption of the interprofessional code of the State Medical Society of Wisconsin and the Wisconsin Bar Association as a model in Texas.

Committee on Cancer.—A conference on cancer care at the community level, to which the chairmen of county medical society cancer committees and personnel of tumor clinics will be invited, is planned for January. An American Cancer Society motion picture, "Time and Two Women," which deals with uterine and cervical cytology, was reviewed and approved with the opinion that it should be shown only with a physician present.

Committee on Medical History.—The committee has three projects in mind: a documentary colored, talking motion picture depicting the officers, committees, and functions of the Association, probably to be taken during the January Executive Council week end; written summaries of the important scientific and legislative matters that have occurred yearly since publication of Dr. P. I. Nixon's book covering the history of the Association up to 1953; publication in the *Journal* of historical articles of general interest.

Committee on Public Relations.—Attention was called to the availability of personal health information cards and family health record booklets for distribution to patients. Efforts to encourage county medical societies to participate in Medical Education Week next year were mentioned, as was a recommendation that a news release disseminate information about the Asian influenza situation.

Committee on Mental Health.—This committee has created subcommittees to deal with various aspects of its business. Favorable consideration was given to a project proposed by the Hogg Foundation for Mental Hygiene to study the problems of discharged or furloughed mental hospital patients. Recommended also that the Board for Texas State Hospitals and Special Schools be advised of the continuing wish of the Texas Medical Association to cooperate in planning for the treatment of patients and all that pertains thereto through a permanent planning and advisory committee as proposed in the Gerty report.

Committee on Blood Banks.—A resolution similar to that approved by the House of Delegates in the spring and urging that the Joint Blood Council be designated as the contracting agency for blood procurement with all governmental agencies was adopted by the House of Delegates of the AMA. Attention was called to two major problems arising with the increased use of blood in state hospitals: (1) donor responsibility on a replacement or monetary basis and (2) financial responsibility.

Committee for Liaison with Workmen's Compensation Insurance Companies.—The committee plans a campaign to inform physicians of all phases of the workmen's compensation laws of the state, using the *Journal,* a letter, and pamphlets.

Committee on School-Physician Relationships.—Plans are under way for a statewide conference on physicians and schools to be held January 7 and 8 under sponsorship of the committee, which emphasized the importance of attendance by a representative number of physicians. Also planned is a program of health education in the school system by means of motion pictures to be distributed by the Texas Medical Association's Memorial Library.

Committee on Rural Health and Doctor Distribution.—Dr. W. L. Wilson of the State Department of Health has reported 5 specific instances involving 34 human beings who have been helped because of the distribution of economic poisons kits and booklets by the Association. Attention was called to proposed distribution of planning guides for county health committees to be sent to county agents, city and county health officers, and county medical societies.

Committee on Cardiovascular Diseases.—The committee called attention to a page relating to information about cardiovascular conditions which is being printed each month in the advertising pages of the *Journal;* the page henceforth will be signed by both the Committee on Cardiovascular Diseases and the Texas Heart Association, which is financing the project. The speakers bureau sponsored by the committee is functioning, and several county societies already have taken advantage of the programs offered.

Committee for Study of Health Costs.—This committee's report said that critics accuse the medical profession of having

a negative attitude in the changing economic order, but that doctors had brought about voluntary prepayment health insurance, a great positive contribution. But the profession has not removed some of the obstacles in its path. On the basis of this, the committee recommended that (1) the Association create a grievance committee on the state level to which its members may refer disagreements with insurance carriers, (2) the Association prepare a schedule of usual fees as a guide to grievance committees, and (3) the Association seek to educate the people and the profession as to the advantages of health insurance by constructing two exhibits for use at appropriate times and places. There was general discussion from the floor, and it was pointed out that while a fee schedule eventually might be a good thing, such a step should be taken only after more thorough study than was possible at that time. Dr. F. W. Yeager, Corpus Christi, reminded that the Board of Councilors is authorized to act as a state grievance committee, with insurance companies or others having complaints against a physician having the privilege of going before a county grievance committee, district councilor, the Board of Councilors, and, if necessary, carrying the case to civil suit. He emphasized the value of personal contact between physicians and insurance representatives to iron out differences. He said that doctors are not bound by the fees authorized in the Medicare schedule in cases other than those dealing with the Medicare program. Dr. Mayo Tenery, Waxahachie, moved that the portion of the report relating to a fee schedule and creation of a state grievance committee be disapproved, and the motion carried.

Committee on Military and Veterans Affairs.—A proposed new Veterans Administration hospital was discussed, and the committee reported that any more veterans' hospital facilities at the present time would result in treatment of more nonservice connected disabilities. Discussions with local groups on such matters should be tactful and educational in intent, pointing out that this is wasteful expenditure, that nurses and other workers are diverted from the community. It was recommended that the committee be authorized to study admission eligibility and develop factual information.

State Committee on American Medical Education Foundation.—Plans were presented for an annual fund drive November 1-30, and it was suggested that a "low-gear" continual campaign for national Medical Education Week and for lay contributions be developed.

Special Committee on Bracero Insurance and Medical Care.—Recommendations were that doctors not enter into agreement with insurance companies to care for braceros on a per capita basis, and that doctors have advance agreements with employers for insuring payment for medical services.

Upon completion of the reports, announcement was made of the next meeting of the Executive Council, January 19, with committees to be in session January 18.

GENERAL PRACTITIONER OF THE YEAR

Dr. Thomas Ford Bryan, Dublin, was honored as General Practitioner of the Year for Texas during the Texas Medical Association's third annual Public Relations Conference September 7 in Austin. He was presented with a bronze plaque by Dr. Howard O. Smith, Marlin, who was Councilor of Dr. Bryan's district at the time of his election, and with an honorary membership in Southern Medical Association and a golden anniversary key containing a diamond for each of his 10 years in the regional organization by Dr. Robert D. Moreton, Fort Worth, councilor for Southern Medical Association to Texas. Dr. Bryan has been a member of Southern Medical Association since January 15, 1915. He was chosen General Practitioner of the Year by the Texas Medical Association at its recent annual session in Dallas.

After introducing Mrs. Bryan, Dr. Smith presented the plaque to Dr. Bryan with this comment: "We see in him what we all want to be, a good doctor." Dr. Bryan said that if he were asked for advice from a young doctor, he would tell him to attend medical meetings. He has always attended as many medical meetings as possible and intends to continue this practice.

During his 57 years of medical practice, he has treated the sick and injured in times of war and peace, floods and famine, often under almost impossible circumstances. Born of a pioneer farm couple, Nicholas and Elizabeth (Ford) Bryan, on September 11, 1874, near Whitney, he had an early ambition to become a doctor. He moved with his family to Iredell when he was 4 years old, and attended public schools there. He studied two years at Baylor University, then entered the University of Texas Medical Branch, and was graduated in 1900. He took time out from his studies to serve as an enlisted man in the Army

DR. THOMAS F. BRYAN

Medical Corps during the Spanish American War, and was on active duty in Puerto Rico. His second tour of duty with the Army Medical Corps came during World War I, when he was commissioned as a captain.

After being graduated from medical school, Dr. Bryan began his internship at St. Mary's Infirmary, Galveston, and was there when the great flood and hurricane struck on September 8, 1900. He was marooned in the infirmary for several days, and worked around the clock to treat the injured. After completing his internship, he returned to Iredell and practiced six years, but moved in 1907 to Dublin, where he continues his active general practice. During his earlier years, he attended postgraduate courses in Chicago, New Orleans, and Los Angeles.

Dr. Bryan has been a member of the Texas and American Medical Associations through Erath-Hood-Somervell Counties Society for 50 years; he served his county group as secretary in 1934 and as president in 1930, 1931, and 1932. He was elected to honorary membership in the state organization in 1955. Dr. Bryan also is a member of the Southern Medical Association, Texas Academy of General Practice, and American Academy of General Practice, and is local surgeon for the Missouri, Kansas, and Texas and Santa

Fe railroads. He was one of the leaders in the organization and establishment of the Dublin Hospital built in 1947 and financed through the sale of stocks. Besides his keen interest in medicine, Dr. Bryan maintains an active part in civic affairs. He has been a member of the Baptist Church for 65 years, a member of the Masonic Lodge for more than 50 years, and a Shriner for 30 years. He is a charter member and past president of the Dublin Development Club, which was organized in 1921. He also is a member of Rotary International. His friends say of him, "He has the rare faculty of being able to take a firm stand on any issue in his community without incurring the criticism and ill will of his colleagues."

Dr. Bryan was married in 1903 to Miss Ora May Lane; she died in 1913. In 1929, he married Miss Anise Harber. They have no children. Dr. and Mrs. Bryan enjoy travel and have attended many medical meetings. Dr. Bryan counts fishing among his special interests.

In seconding the nomination of Dr. Bryan, Dr. G. V. Brindley, Temple, said, "He is a Christian gentleman who has been active in civic and religious affairs of his community. He has done much for the people where he has lived. He has the right conception of medicine, and the Texas Medical Association will honor itself in electing him as the General Practitioner of the Year."

"HONOUR A PHYSICIAN . . ."

Dr. F. J. L. Blasingame, Wharton, in special ceremonies in Austin September 7, was paid tribute by the Texas Medical Association on his appointment, effective January 1, as General Manager of the American Medical Association.

Making the introduction and presenting gifts from the Association was Dr. Milford O. Rouse, Dallas, chairman of Texas delegates to the AMA. He told some of the more serious accomplishments of Dr. Blasingame, but mentioned human incidents from his career which, though humorous, reflected the splendid character and worthy accomplishments of the man. In part, he said, "By innate ability and sheer hard work 'Bing' Blasingame has demonstrated that even in a smaller city can be gathered a group of competent physicians and surgeons to render medical, surgical, and hospital care equal to that of any larger medical center. By many years of faithful work with private patients, he has acquired a viewpoint of a practitioner of medicine that he will never lose."

Dr. and Mrs. Blasingame with four of their five children. John Chester, Betty Nan, and Mary Lillian are in the foreground, and Rebecca Louise is on the arm of her father's chair.

Following Dr. Rouse's tribute, Dr. Denton Kerr, President of the Association and a former vice-president of the Southern Medical Association, presented Dr. Blasingame

The desk set presented to Dr. Blasingame is above; below, the letter case shows the title page.

with a golden anniversary key from SMA in recognition of his contributions to medicine in the south and in honor of his new appointment.

Dr. Rouse then unveiled a desk set given to Dr. Blasingame by the State Association in appreciation of his outstanding leadership, and handed Dr. Blasingame a specially made booklike letter case with a hand illuminated title page. Dr. Rouse read the quotation on this page from Ecclesiasticus 38:1, "Honour a physician with the honour due unto him." The case was filled with personal letters written to Dr. Blasingame as he accepts his new office. Others who wish to send letters for this keepsake were invited to do so.

Below are excerpts from some of the letters:

> . . . You have amazed me at the wealth of knowledge and information that you have and which you so willingly impart to others.
>
> . . . I think it is a question as to whether you or the American Medical Association should be congratulated. May your arm be strong and the Lord hold your hands.

. . . if I had to pick one characteristic of F. J. L. Blasingame that best pictured him as a man and as a doctor, I'd repeat what I have said to many people. "He takes his turn on first and second call no matter how much he's gone during the month."

. . . While I have not always agreed with you, you have always had my complete respect and no person has ever, properly, questioned your integrity and intentions.

. . . In my humble opinion, the next 10 years are most vital in our good country, and I am so thankful that the man of greatest responsibility and influence in Medicine, Dr. Bing Blasingame, is a man who is truly conservative and yet most practical, with the ability to get the job done. I want to express my personal appreciation to your good wife of her willingness for you to render service.

. . . Texas is losing one of its best citizens and a natural leader of men,—sincere, honest, unselfish, and able. We shall all miss Dr. F. J. L. Blasingame.

Dr. Blasingame responded in an extemporaneous recital of appreciation to his family, clinic associates, and professional colleagues throughout the state who have helped make possible his attainments. He explained the difficulty he had encountered in making the choice to leave Texas for a new post in Chicago. He stressed the many significant opportunities the American Medical Association has to lead the medical profession into a still brighter future, but underlined the necessity of dreaming dreams and making plans for 10, 20, or more years ahead and of drawing into the part-time voluntary workers and the full-time employed staff of the AMA the finest minds and greatest experience that can be obtained. He expressed his gratitude to the Texas Medical Association for its support of and interest in him and for the expressions of affection given to him that day.

★ County Societies

Community Clinics And the County Society

Community clinics may serve multiple purposes. For the medically indigent, such clinics may provide diagnostic and treatment aid. For persons unlettered in the complexities of how to stay well and how to deal with newly acquired chronic illness, a clinic may be a source of education and training. For the physician, a clinic may be a means of becoming better acquainted with certain diseases and an outlet for humanitarian service. For a county medical society, participation in a clinic may offer excellent opportunities for building good will.

Reports from secretaries of county medical societies in Texas indicate that in communities with fairly large populations, several types of clinics can be organized to advantage; in smaller communities, lack of staff and facilities necessitates less extensive projects. Several county medical societies actively cooperate with such clinics and usually help staff them, but in most instances, cities, state, hospitals, or other associations actually initiate, finance, and sponsor them.

Ellis, Tom Green-Eight, and *Cameron-Willacy Counties Societies* sponsor clinics financed by their cities and city-county-state welfare units. In Ellis County, a well baby clinic for two orphans' homes is operated, and routine immunizations are given. Also, indigents may receive medications, and some serologic work is done. The clinic is open 5½ days a week; the city-county nurse is a full time staff member, and doctors help when needed. Between 100 and 125 patients are handled monthly.

The maternity and well baby clinics held 2 hours weekly in Sinton, Ingleside, and Mathis are not for medical care, but are for diagnosis and education of patients. Local physicians, members of the *San Patricio-Aransas-Refugio Counties Medical Society,* staff the clinics, and only the indigent are seen. The county health unit co-sponsors the program, and it is financed through the state. About 78 patients are seen each month. For about 5 years, a well baby clinic has been handled in *Brown-San Saba-Comanche-Mills Counties* at the local health center, and 4 members of the county medical society rotate working each Thursday. Indigent patients are eligible for medical care. Although the people know that the clinic is available for them, say the doctors, they do not know what types of cases it is equipped to handle, but their opinion is that the clinic has been a valuable aid in educating the public.

A crippled children's clinic, which is open by appointment, is operating in *Cherokee County,* and is the result of close cooperation between the county medical society and the local Lions Club. It has been established about a year, and the medically indigent are eligible for care. Both children and parents are trained, and specific treatment is given in each case; 159 patients are registered. The society anticipates that a well baby clinic soon will be started.

Hill County Society sponsors a crippled children's therapy center, which is directed by the county nurse.

Tumor and heart clinics are open one or two times a month for residents of *Kerr, Kendall, Gillespie,* and *Bandera Counties.* These are held in local hospitals, and primarily are for medical care, diagnosis, and education of the physicians. Kerrville doctors hold a group consultation with specialists from San Antonio, and this program is sponsored jointly by the medical society and the Peterson Foundation, Tuberculosis Association, and Community Chest, with additional support from individual donations. About 20 patients are handled monthly, and anyone is eligible as a patient.

Johnson County Society, in cooperation with the local Tuberculosis Association, sponsors a tuberculosis clinic.

McLennan County Society sponsors heart, tumor, and well baby clinics which have been in operation for the past 10 years, and about a third of the members of the society help staff the clinics on specified days. Both the city-county health unit and Providence Hospital help with the clinics, and any patient recommended by a doctor is eligible. The clinics are well used by the people of the area, say the doctors, and generally, they know what types of cases are handled and do not expect more assistance than is available.

In *Dallas,* tumor, heart, well baby, and tuberculosis clinics as well as others have been in operation for many years; they are held at hospitals and other available locations, and are sponsored jointly with hospitals, city, state, or other groups. Several hundred Dallas doctors participate, and the medically indigent are accepted as patients.

Bosque, Bexar, and *Hidalgo-Starr Counties Medical Societies* report that although they do not actually sponsor such clinics, there is definite cooperation with other groups in this type of work. Dr. Van D. Goodall, Clifton, secretary of the *Bosque County Society,* says, "We consider Bosque too small for community clinics, but the society does sponsor and cooperate with such county fund drives as tuberculosis, heart, poliomyelitis, and so forth." *Bexar County Society* endorses various clinics in the San Antonio area, and many doctors participate, but the society as a group does not sponsor any of them. In *Hidalgo-Starr Counties,* the doctors in each town cooperate in well baby clinics sponsored by public health departments. In McAllen, the clinic is open Monday, Wednesday, and Friday mornings, and doctors rotate calls. Eligibility of patients is based on monthly income. The clinic is financed from the United Fund.

Harrison County Society Participates in Local Fair

"Alcohol and the Human Body," a three-dimensional exhibit, was one of the displays shown by the Harrison County Medical Society during the Central East Texas Fair in Marshall early in September. This exhibit is on permanent display at the Dallas Health Museum, and never had been loaned before. Another display at the fair was on mental health, and members of the Woman's Auxiliary to the Harrison County Medical Society staffed the exhibit and information booth, which was in the Commercial Exhibit Building.

WOMAN'S AUXILIARY

Auxiliary's Share in Science Fairs

September, to auxiliaries to county medical societies across Texas, means "Time to Get Busy on Science Fairs."

Some auxiliaries will be sponsoring science fairs for the first time this year. Others will be working on an already established program. But whether a local auxiliary's job is to increase its community's awareness of the value of annual science fairs or to arouse enough enthusiasm to launch such a program, it is a big and important job.

Local auxiliaries which want or need help in learning how to go about sponsoring a local science fair can get it from the specially appointed Science Fair Committee which is headed by Mrs. William D. Nicholson, Freeport, Chairman, and Mrs. Elmer Heimbigner, Lake Jackson, Co-Chairman. Other members of the committee are Mrs. James N. White, San Angelo; Mrs. C. Keith Barnes, Fort Worth; Mrs. L. C. Heare, Port Arthur; and Mrs. W. G. Robertson, Jr., Luling.

Aside from its main objective, which is, of course, to encourage young people to take an active interest in science, the sponsorship of science fairs gives county auxiliaries a splendid opportunity to work with schools, newspapers, chambers of commerce, and local service organizations on a worthwhile youth project.

When a local auxiliary takes the attitude, "We want to help in every way we can to make the science fair a success," it is putting across the idea that the auxiliary isn't out for its own glory, that it isn't trying to grab any credit, but that all it wants is to lend a helping hand in an important community project.

When doctors' wives are willing to pool their efforts with members of other organizations, they also are doing a splendid job of public relations, because the best public relations come as a result of service.

Another sidelight on the value of this rather new auxiliary project is that a science fair is possible in even the smaller communities.

Where there is even one high school there is an opportunity for launching a science fair. Where there is even one high school there are bound to be students whose spark of interest in science should be encouraged to burn more brightly.

And a winner in the National Science Fair can come from anywhere. Texas took its share of honors at the last national fair; its young scientists took one second place award and four fourth place awards. The 1958 national showing will be in Flint, Mich., May 7-10.

But those who place in the National Science Fair aren't the only winners. Any boy or girl who takes part in a science fair on even a local level wins a sense of accomplishment for a project completed, valuable experience in presenting his work and his ideas to others, and the strengthening knowledge that the adults of his community are backing his interest in science.

That is quite a lot for any youngster to win and quite a lot for any auxiliary—by its sponsorship of a local science fair—to help him win.

—MRS. FREDERICK C. LOWRY, Austin.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

RECENT DEATHS

DR. W. H. BEAZLEY

Dr. William Herbert Beazley, Baytown, Texas, died July 11, 1957, of myocardial infarction and coronary artery thrombosis.

He was born April 7, 1884, in LaPorte, and was the son of John and Mary Emily (McMillian) Beazley. After being graduated from LaPorte High School, he studied at the Kentucky School of Pharmacy, Louisville, Ky., then entered the University of Louisville School of Medicine. He received his doctor of medicine degree in 1912, and interned at Lunn's Sanitarium, Houston. He also spent some time in the Charity Hospitals of New Orleans and Shreveport. Dr. Beazley was located in New Caney, Humble, Diboll, Austin, Honey Island, and Houston before settling in Silsbee in 1929. He practiced there until 1947, when he retired and moved to Baytown. While in Austin, Dr. Beazley was state health officer.

He was a member of the Texas and American Medical Associations consecutively through the Polk, Angelina, Harris, Jefferson, and Hardin-Tyler Counties Medical Societies, and served the latter group as president in 1938 and secretary in 1946 and 1947. He was chairman of the board of trustees of the Silsbee Independent School district for 17 years, and was a member of the Masonic Lodge, Kiwanis Club, and Methodist Church.

Miss Mattie Dee Lacy and Dr. Beazley were married July 21, 1916, in Houston. Mrs. Beazley survives, as do a

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

brother, Hamilton Beazley, and four sisters, Mrs. Mary Gaillard, Mrs. Lucy Modesett, Miss Julia Beazley, and Miss Rosadelle Beazley, all of Houston.

DR. HARRY FARBER

Dr. Harry Farber, Denton, Texas, died of coronary occlusion June 15, 1957, while vacationing with his family in Laguna Beach, Calif.

Dr. Farber was born on December 25, 1910, in New York City, and was the son of Isidore and Ida (Eiss) Farber. He attended Boys High School, Brooklyn, and received a bachelor of science degree from New York University in 1930. In 1935, he was graduated from the Royal College of Physicians and Surgeons, Edinburgh and Glasgow, Scotland. Dr. Farber interned in Metropolitan Hospital, New York, then spent one year as a resident surgeon there. He was chief resident at West Side Hospital, New York, two years. He then began private medical practice, became an instructor at New York Medical College, and taught clinical surgery and experimental surgery (on dogs) one year each. In 1941, he joined the Army Medical Corps and attained the rank of major. He spent 27 months in the Pacific, and was stationed at Tripler General Hospital, Honolulu, during the attack on Pearl Harbor. He was awarded a combat medical insignia for his service during the campaign in the central Solomon Islands. He spent a total of 5½ years in the armed forces.

Dr. Farber moved in 1946 to Denton, where he was in general practice and gave special attention to surgery and fractures.

DR. HARRY FARBER

He was a member of the Texas and American Medical Associations through the Denton County Medical Society, of which he was president in 1951.

He enjoyed horticulture, and raised tropical plants as a hobby.

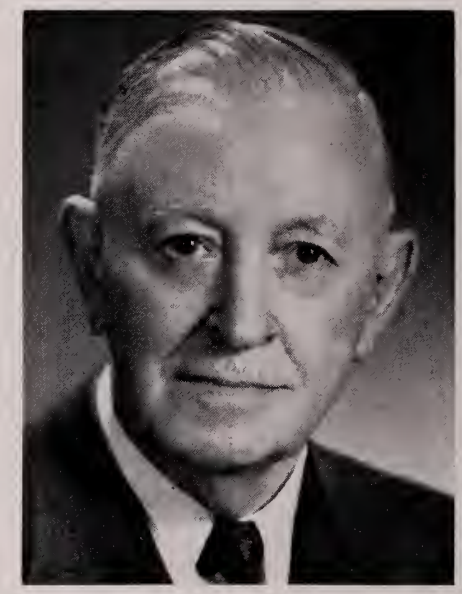
Dr. Farber was married November 16, 1944, in Denton to Miss Lazelle Hohenstein.

Survivors include Mrs. Farber and two daughters, Penelope and Erica, all of Denton; two brothers, Murray Farber, Brooklyn, and Herman Farber, Los Angeles; and a sister, Mrs. Sylvia Janof, Brooklyn.

DR. OTIS W. LITTLE

Dr. Otis Williamson Little, Abilene, Texas, died in a local hospital March 10, 1957, of hypostatic pneumonia and bronchiectasis.

He was born November 6, 1879, in Putnam, Ala.; his parents were Edmund and Katherine (Orr) Little. After attending public schools in Putnam and studying with private instructors, he entered the Medical Department of the University of Louisville, Louisville, Ky., from which he was graduated in 1911. Beginning his medical practice in Alabama, he waited 6 years before taking an Army internship; he served with the Army Medical Corps from 1917 until 1927 and was a captain. He spent 2 years in the Philippine Islands, and returned to practice in Tuscola, Texas. He spent brief periods in Bridgeport and Decatur. In 1933, he moved to Abilene, where he was in active practice until the time of his death.



DR. OTIS W. LITTLE

He was a member of the Texas and American Medical Associations through the Taylor-Jones Counties Medical Society, and also was a member of the Southern Medical Association, Phi Beta Pi medical fraternity, and Chamber of Commerce. He had been chairman of the staffs of both Hendrick Memorial and St. Ann Hospitals in Abilene and was head of the local induction center during World War II.

On August 21, 1929, Miss Maude Skinner, formerly of Gonzales, and Dr. Little were married in Dallas. She survives, as does a daughter, Mrs. Gilbert Taylor, both of Abilene.

DR. HOWARD A. ROSS

Dr. Howard Albertus Ross died June 26, 1957, in Longview, Texas, where he had been in general practice 28 years until his retirement 6 years ago.

He was born in Clayton, on January 22, 1880, and was the son of Arthur Brown and Sarah Jane (Davis) Ross. He attended public schools and the Hewett Institute of Beckville, and was graduated from the University of Texas Medical Branch, Galveston, in 1909. He was vice-president of his senior class. He practiced 3 years in Clayton and 9 years in Carthage before moving to Longview.

Dr. Ross was a member of the Texas and American Med-

ical Associations through the Panola or Gregg Counties Medical Societies and was a past president of both groups. He also was a member and past vice-president of the Tri-State Medical Society. He was health officer in Panola County and in Carthage, a member of the Carthage and Longview school boards for 20 years, and a board member of the First Christian Churches in both cities. He was a member of Rotary International, Knights of Pythias, Elk's Club, and the Pinecrest Country Club.

Miss Manola Beatrice Duke and Dr. Ross were married in Clayton on December 21, 1902. She survives, as do three children, Miss Alvie Louise Ross, Howard Randall Ross, and Joseph Carl Ross, and two grandchildren, all of Longview.

DR. BRYANT O. BAKER

Dr. Bryant Orland Baker, Dallas, Texas, died July 24, 1957.

Born November 20, 1900, in Mineral Wells, he was the son of John T. and Timmie Inez (Herring) Baker. He received his early education in rural schools near Mineral

DR. BRYANT O. BAKER

Wells, then earned a bachelor of science degree from West Texas State Teachers College, Canyon, in 1925. In 1930, he received his master of arts degree from Kansas University, Lawrence. He was graduated from Baylor University College of Medicine in 1938, and interned at Parkland Hospital, Dallas, for one year. He held assistantships in undergraduate, graduate, and medical schools. Later, he took several short postgraduate courses. Before entering medical school Dr. Baker taught for 10 years, first in Mineral Wells High School and then at Southwest Texas State College in San Marcos.

Dr. Baker began practicing in Dallas in 1939 and was active there throughout his career except for about 2 years in the early forties spent in Comanche.

He was a member of the Texas and American Medical Associations through the Dallas County Medical Society, and also was a member of the Dallas, Texas, and American Academies of General Practice. He was a life member of the Texas State Teachers Association. He was a Baptist, and his hobbies were photography and work in his yard.

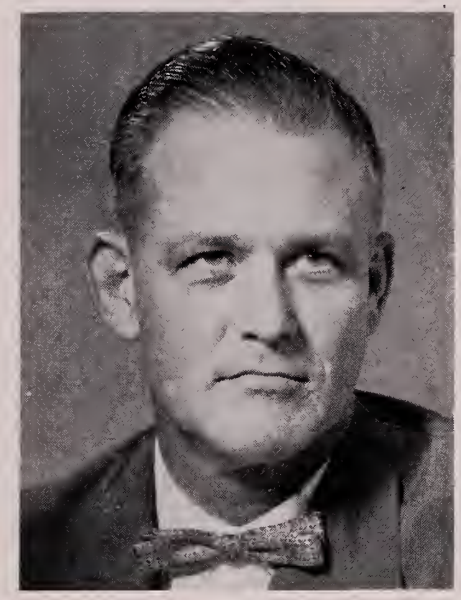
Miss Esther Sue Cavitt and Dr. Baker were married June 3, 1928, in Red Oak; survivors other than Mrs. Baker include a son, Bryant Orland Baker, Jr., Dallas; four brothers, Dr. James O. Baker and Dr. John O. Baker, Dallas; Henry M. Baker, Childress; and J. C. Baker, Lufkin; and four sisters, Mrs. Mary Opal Quinn and Mrs. Inez Ludden, Dallas; Mrs. Hortense Boedeker, Lubbock; and Mrs. Martha King, Plainview.

DR. M. B. BREATH

Dr. Marshall Burt Breath, San Antonio, Texas, died of coronary occlusion July 15, 1957.

He was the son of Dr. Walter Parry and Birdie (McCutcheon) Breath, and was born November 12, 1915, in Galveston, where his father practiced ophthalmology. After attending public schools there, he entered New Mexico Military Institute, Roswell, from which he was graduated in 1934. He received his bachelor of arts degree from the University of Texas, Austin, in 1936, then entered the University of Texas School of Medicine, Galveston, where he completed his studies in 1940. He interned at the City Hospital, Winston-Salem, N. C., and after a tour of military duty spent two years in residency in internal medicine at the University of Texas School of Medicine, Galveston.

In 1948, Dr. Breath began his private practice in San Antonio, specializing in internal medicine. He remained there until 1955, when he practiced briefly in Corpus Christi and in Pikeville, Ky., and returned to San Antonio in 1956.



DR. M. B. BREATH

Dr. Breath was a member of the Texas and American Medical Associations through the Bexar or Nueces Counties Medical Societies. A diplomate of the American Board of Internal Medicine, he also was a member of the Texas and American Heart Associations, Phi Rho Sigma medical fraternity, Phi Gamma Delta social fraternity, American Legion, and the Episcopal Church. During World War II, he served 5 years in the Army Medical Corps, and was awarded the Bronze Star and the Purple Heart, being wounded in the Battle of the Bulge.

He enjoyed fishing and music.

On November 23, 1954, Emma Laroe Huntress and Dr. Breath were married in San Antonio. Mrs. Breath survives, as does one brother, W. M. Breath, Corpus Christi.

DR. CARL W. SHIRLEY

Dr. Carl Wilson Shirley, Houston, Texas, died July 25, 1957.

Son of E. D. and Sally (Hutto) Shirley, he was born February 21, 1898, in Marble Falls, and attended public schools in Llano. After being graduated from the University of Texas, Austin, in 1921, he entered the University of Texas Medical Branch, Galveston, and received his doctor of medicine degree in 1925. He interned at John Sealy Hospital, Galveston, and was a resident in urology at Trenton State Hospital, Trenton, N. J., and the Jersey City Hospital, Jersey City, N. J., for a year each. Dr. Shirley began practicing urology in Houston in 1929, and continued until the time of his death.

DR. CARL W. SHIRLEY

He was a member of the Texas Medical Association, American Medical Association, and Harris County Medical Society, and during World War II he was in the Navy and served in San Diego, Guam, and Corona, Calif. He was retired in 1946 with the rank of captain.

Dr. Shirley and Miss Kathryn Cochran were married May 21, 1932, in Houston. Survivors other than Mrs. Shirley are two sons, Carl W. Shirley, Jr., and Robert B. Shirley, both of Houston, and a brother, M. D. Shirley, Brownwood

DR. ALFRED S. OSBORN

Dr. Alfred Shaffer Osborn, McAllen, Texas, died of accidental electric shock July 7, 1957.

He was born July 13, 1911, in McAllen; his parents were Frank Ely and Cora Elizabeth (Shaffer) Osborn. After receiving his preliminary education in public schools, he attended Schreiner Institute in Kerrville, and entered the University of Texas, Austin, in 1928. He received his bachelor of arts degree in 1934, and at the same time was graduated from the University of Texas Medical Branch, Galveston. Dr. Osborn interned 2 years at Jefferson Davis Hospital, Houston, and was resident physician at Memorial Hospital, Houston, for a brief period. He then spent 7½ months in residency at the Turner Urological Institute, Houston. In 1937, he began his general practice in McAllen, where he remained until the time of his death.

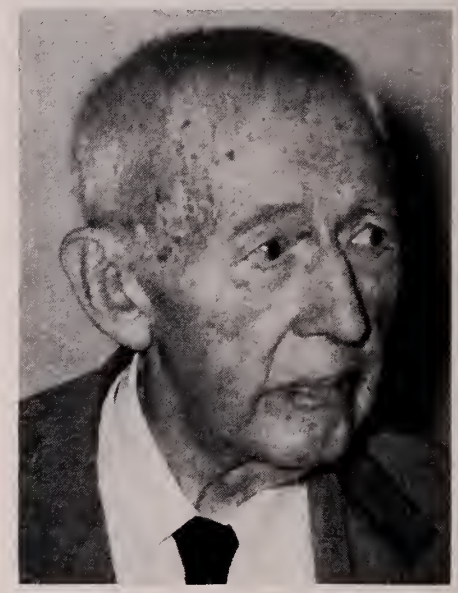
Dr. Osborn was a member of the Texas and American Medical Associations through the Hidalgo-Starr Counties Medical Society for 20 years, and served as secretary of his society in 1942 and 1943 and as president in 1945. He also was a member of the Presbyterian Church and was an honorary member of the volunteer fire department.

Miss Elsie Bert Reagan, a registered nurse, and Dr. Osborn were married July 10, 1937, in Houston. Survivors include Mrs. Osborn; a son, Alfred S. Osborn, Jr.; his parents, Dr. and Mrs. Frank E. Osborn; and two brothers, Frank Ely Osborn, Jr. and Dr. Robert Wallace Osborn, all of McAllen.

DR. WILLIAM EHRHARDT

Dr. William Ehrhardt, general practitioner in Bammel, Texas, for 57 years, died in a local hospital August 15, 1957, of complications which developed after a fall.

He was born November 14, 1872, in Bammel, and his parents were David and Elizabeth (Klein) Ehrhardt. After attending public schools in Bammel, he attended Baylor University, Dallas, and Southwestern University, Georgetown. He studied at the University of Texas Medical Branch, Galveston, but was graduated in 1900 from the Tulane University of Louisiana School of Medicine. Later, he returned to Tulane for three years of postgraduate training.



DR. WILLIAM EHRHARDT

Dr. Ehrhardt began practicing in his home town, and with the exception of four months spent as a physician for La Mina Saragosa, San Leon, Mexico, he remained in Bammel until his retirement.

He was elected to honorary membership in the Texas Medical Association in 1951 after having been a member through the Harris County Medical Society since 1909. He also was a member of the American Medical Association, Kappa Sigma social fraternity, and the Methodist Church. He raised honey bees and trees, and was interested in mining stocks.

He is survived by three sisters, Mrs. Mary Tautenhahn, Westfield; Mrs. Annie Cramer, Houston; and Mrs. Elizabeth Robinson, Spring.

TEXAS
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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

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Making Voluntary Insurance Work

During my life as a physician the economic aspect of medical care has undergone tremendous changes. These have been in part due to the transition from a period of depression to a period of inflation; during this same time the discovery of new drugs and the development of new techniques in medicine and surgery have increased the number of available medical services. These and other factors have increased the cost of illness; this in turn has added emphasis to the drive by various groups within this country for socialized medicine. The three weapons which have been of the greatest value in our stand against socialization have been improved medical care, better public relations, and voluntary prepaid health insurance.

At present, voluntary health insurance has brought protection to more than 110,000,000 people in these United States. In the course of the development of this type of insurance, the policyholders have demanded more and more extensive coverage; and such coverage, plus the increased utilization of hospitalization, has increased the cost of the premiums. This basic type of coverage has reached a plateau in that the premiums cannot go much higher without reaching a point where the average man cannot afford to carry such insurance.

At the same time, there has been a demand for a type of coverage which would meet the expense of a serious, long term, major illness. This was first answered by the so-called catastrophic illness policy, which included several of the dreaded diseases, and some companies are now offering policies which cover the expense of any illness that

requires great expense. Such coverage usually goes under the name of "Major Medical Expense." The first policy of this type was written in 1949, and at present there are nearly 10,000,000 Americans who have some type of major medical coverage. Several different types of policies have been tried in this field, probably the most successful being the deductible type with the patient paying a percentage of the amount over the basic deduction; it appears that in the future this will become increasingly popular. This type of insurance can be of great value to the medical profession. It assures the physician of his fee in those prolonged and serious cases that require an excessive amount of his time; also, it is another weapon in the fight against socialized medicine, and it will save the average family from becoming bankrupt when such major illness strikes.

As this type of coverage has become more popular, insurance carriers have complained that some physicians have taken advantage of the fact by raising their fees when the patient is so covered. This practice will necessitate an increase in the premium charged for such a policy and ultimately will result in failure of this program. Insurance companies are hesitant to complain about such violations through the channels of organized medicine. Occasionally, a capable claim adjuster can reach a satisfactory revision in the fee by personal interview with the physician, and only rarely are such cases appealed to the grievance committee of the county society. Although the company may believe that an overcharge has been made, the fee is usually paid unless it is exorbitant. What may seem at first to be a high fee frequently is found to be a justified charge when the adjustor learns the exact circumstances of the case. Most insurance report blanks are inadequate; and, if the physician will send with the bill a narrative report which justifies the fee, the need for delay and investigation may be eliminated.

If this type of insurance is to survive, physicians must charge their usual fee; and, if free enterprise in the practice of medicine is to survive, the amount of this fee must be determined by each individual physician. In arriving at the fee to be charged for any given service, the physician should take into consideration the severity of the disease, the amount of work involved, and the responsibility undertaken. The fee also should be influenced by the usual and customary charge for such medical service in a given area and by the individual patient's ability to pay. Finally, before presenting the bill, each physician could well ask himself, "Have I earned it?"

—R. M. TENERY, Waxahachie.

PR: Personal Responsibility

The Medical Society of New Jersey has been emphasizing a slogan recently which basically says, "Public Relations Means Personal Responsibility." This same point of view was stressed over and over in the Public Relations Conference sponsored by the Texas Medical Association last month.

Regardless of what the medical profession as an organized entity does to try to create good will, it is all as "a sounding brass or a tinkling cymbal," Leo E. Brown, American Medical Association public relations director, pointed out, if the individual physician fails to practice good relations in the handling of each patient.

Furthermore, as Dan J. Forrestal, manager of public relations for the Monsanto Chemical Company underscored, the impression an individual (or association) makes on the public will be favorable only insofar as the inherent value or conduct of that individual is worth while and the message about this worthiness is told appropriately. For, he said, *PR* (public relations) always equals x (inherent value) plus y (interpretation of that value).

Each doctor is aware of many of the little things about himself and his actions, his assistants and office, his community activities, and even his wife and family—aside from his tech-

nical skill as a physician—that have an effect on the way his patients and acquaintances think of him and of the profession he represents. Nobody else can attend to these things as well as he can, and it is his "personal responsibility" to build them into the best public relations he can. Yet, as Melvin T. Munn, director of public relations for Blue Cross-Blue Shield of Texas, admitted, most of us "don't public relate as well as we know how."

Safety: A Problem for All

Safety is a major problem in the world today, and George can't solve it. It will take the time and effort of everyone to help promote and practice safety at all times if the answer is to be found. Physicians are valuable to this program in a professional way, but they also have a role as good citizens who know the facts —for instance, that of all children from ages 1 to 14 years who die from any cause, 2 out of 5 die as a result of accidents.

When the National Safety Congress is held later this month in Chicago, the American Medical Association's Council on Industrial Health again will co-sponsor a session on vision in industry. This is only one facet of the safety picture that will be highlighted in Chicago.

Although the Texas Medical Association has no organized subgroup devoting its time primarily to safety, several of its committees deal with some aspect of the problem—Committee on Industrial Health with occupational hazards, Committee on School-Physician Relationships with safety in athletics, Committee on Rural Health and Doctor Distribution with proper use of agricultural insecticides, Committee on Maternal Mortality with prevention of accidents in the delivery room. The Association also is cooperating in studies by Cornell University on automotive safety.

The Woman's Auxiliary to the Texas Medical Association has an active safety and rehabilitation committee. The Auxiliary suggests that as individuals, doctors' wives (and doctors, too) be informed of what the National and Texas Safety Associations are doing and of the safety rules and regulations of the community. The National Auxiliary hopes at least one full program for each county medical auxiliary will be on a phase of safety: safety in the home, safety in school (including driver training), GEMS (Good Emergency Mother Substitutes) for baby sitters and parents, or some other topic.

The Auxiliary also is encouraging its members to schedule motion pictures on safety for various groups with which they have contact as well as for the auxiliaries themselves. A number of films suitable for lay audiences may be borrowed from the Memorial Library of the Texas Medical Association.

Safety is everybody's business, but it has to be thought of in terms of each individual person's business.

Medical Education Needs Support

To maintain the present physician-patient ratio will cost an additional billion dollars for medical education in the next 18 years, Dr. Vernon W. Lippard of the Yale University Schools of Medicine says. He estimates that by 1975 all existing medical schools will have to be expanded and at least 25 more new ones built to produce the 2,000 more physicians who will be needed annually by then for a growing population.

Meanwhile, the *Journal of the American Medical Association** points out, a typical medical school can count on less than one out of every five budget dollars to come from tuition. The rest must come from endowments, gifts, or the United States treasury.

One of the chief efforts to combat the necessity for federal funds has been to obtain contributions from private industry, but to obtain

**Investment in Knowledge, J.A.M.A. 163:1483-1484 (April 20) 1957.*

such support requires the leadership of the medical profession itself. Since 1951, the American Medical Education Foundation has been campaigning for funds from physicians, and this year's concentrated effort will take place in Texas next month under the direction of the Texas Medical Association's Committee for the American Medical Education Foundation headed by Dr. D. J. Sibley of Fort Stockton.

Last year Texas physicians contributed $94,575 to medical education, $20,145 of it through AMEF. In addition, the Woman's Auxiliary to the Texas Medical Association raised $10,881. Yet, Texas medical schools are receiving considerably more than that in grants from AMEF and the National Fund for Medical Education (the industrial counterpart of AMEF).

Sizable contributions, which may be earmarked for specific schools and which are deductible for income tax purposes, are needed and may be given either through a local AMEF committee or to Dr. Sibley.

Another means for helping AMEF is by buying Christmas cards, designed especially for the purpose, offered by the Woman's Auxiliary to the Texas Medical Association at $2.50 for a box of 10. These cards may be ordered through the county auxiliary or directly from the Woman's Auxiliary, Texas Medical Association, 1801 North Lamar Boulevard, Austin. The Auxiliary also has sympathy and utility cards which can be sent in lieu of flowers or gifts in return for contributions to AMEF.

Doctors traditionally have accepted the responsibility of passing along the knowledge of their great profession to the young men and women who will join them as physicians. With operating costs continuing to mount in the nation's medical schools, financial support is a necessary means of keeping the flow of knowledge unfettered.

Noteworthy

A few months ago the Committee on Rural Health and Doctor Distribution sent information on economic poisons to members of the Association. At the Executive Council meeting last month, Dr. W. L. Wilson, head of the division of occupational health of the State Department of Health, reported specific instances involving 34 human beings who had been helped because of these booklets.

It is gratifying to observe such immediate and worth-while results from any project.

Perhaps it would be appropriate to mention again that physicians anywhere in the state who need technical information regarding poisonings but do not have access locally to a poison control center may call the Occupational Health Division of the State Department of Health in Austin, telephone GReenwood 6-2681 (after office hours, GLendale 2-1334).

What Will a Week's Wages Buy?

Following are the percentages of one week's wages in 1947-1949, 1954, and 1956 required to purchase the amount of medical care and other items that could be purchased with one week's wages in 1935-1939. The consumer's purchase of many goods and services has become favorable.

	Cost in Percentage of One Week's Wages		
	1947-1949	1954	1956
Physicians' fees	57	50	48
Hospital rates	87	100	99
Food	86	71	63
Rent	51	48	45
Transportation	61	58	52
Furniture	90	71	63

(Figures from American Medical Association Bureau of Medical Economic Research Miscellaneous Publication M-106B.)

President's Page

Facts Every Citizen Must Know

Our Constitution and the Bill of Rights as designed by our founding fathers set up the framework for the greatest republic the world has ever known. Under it the separate states and the individual citizen had rights and privileges that inspired initiative and competition as well as mutual cooperation, all of which are basic in the development and perpetuation of a strong free country.

From the outset, dreamers and idealists have tried to change our form of government. Only an enlightened people and dedicated public servants have been able to cope with the constant efforts of those who would weaken the powers of states and destroy the liberties of the individual. Below you will find a record of some decisions, some actions, and some facts which no patriotic, freedom-loving person can read without concluding that it is much later than we think. Only enlightened citizens and dedicated public servants can arrest or reverse this trend, which, if continued, will soon render us helpless pawns in the hands of an all powerful, bureaucratic, central government.

Did you know that the civil rights bill passed by the last Congress places everyone from the most lowly citizen to the governors of our states under direct control of the federal courts and the attorney general of the United States, neither of which are elected representatives of the people? Not since the days of reconstruction has there been a more severe blow to states rights and personal freedom.

Did you know that most of the diplomatic papers of international conferences of the last two decades have not been published? The Yalta Conference was published only after approximately 50,000 words of it had been censored.

Did you know that during the first 158 years of our country the federal government collected 406 billion dollars in taxes, during which time we fought and won six wars? In the last 7 years it has collected 433 billion dollars. And in 3 years of President Eisenhower's administration, 193 billion dollars were spent.

Did you know that we have soldiers in approximately 50 countries of the world and they are spending billions of dollars annually to prevent the spread of Communism? Yet, we are sending boatloads of

military supplies, federal surpluses, farm products—and even money —to Communist nations. Since we began this inconsistent fight against Communism, approximately 600 million people have been put under the Communist yoke. The strength of Communists in America is at an all-time high—in fact, they are nearly as strong in America today as they were in Russia when they took over the government.

Did you know that more than 12 billion dollars have been spent on the federal farm aid program in the past few years? Of that 12 billion dollars, one farmer in Oregon has been paid more than 200,000 dollars for not cultivating his 1,500 acre farm.

Did you know that between the years 1900 and 1955 the public school enrollment increased a little more than 2 times, while during the same period the operational cost multiplied 43 times?

Did you know that last year the United States Office of Education predicted that by 1961 Texas would need 18,757 new classrooms to take care of the anticipated increase of 355,900 new students? At the present rate of construction Texas will have 20,007 new classrooms, or a surplus of 1,250, according to the Office of Education figures; and this is being done without federal aid! Yet, President Eisenhower said recently that he will go all-out in the next Congress in his effort to get federal aid for schools.

Did you know that in 1952 during the campaign the Republicans promised to clean out the bureaucrats in Washington? Yet they are now recommending the addition of approximately 105,000 new federal employees to our payroll. The cost of the present bureaucrats to the American people is almost twice that which was necessary to run the federal government 20 years ago.

Did you know the doorkeeper of the House of Representatives in Washington receives $16,500 per year and his assistant $12,500 per year? Three years ago their salaries were $6,000 and $3,500 respectively. Their present salaries are above the average salary of the college presidents of America.

Did you know the number of medical school graduates is increasing in America much faster proportionately than the population of our country?

Denton Kerr

ORIGINAL ARTICLES

Nasal Injuries And Deformities In the Newborn

J. CHARLES DICKSON, M. D., F.A.C.S., and ROBERT M. DAVIS, M. D.

Houston, Texas

THE PROBLEM of nasal injuries in the newborn is one which involves the obstetrician, the pediatrician, and the otolaryngologist. Little may be found in the literature about this problem. We will discuss the extent of the problem, the various factors producing the deformity, and the treatment of the deformity and will give a summary.

Dr. J. Charles Dickson and his co-author are from the Department of Otolaryngology, Baylor University College of Medicine, and from Methodist and Hermann Hospitals; they presented this paper for the Section on Eye, Ear, Nose, and Throat April 29, 1957, at the Texas Medical Association's annual session in Dallas.

A careful review of the literature on nasal deformities in the newborn brings out a number of factors that cause deformities such as trauma, developmental problems, and racial characteristics. A survey of 282 consecutive births in white, Mexican, and Negro patients, including types of noses and number and kind of deformities, is presented along with recommended treatment.

REVIEW OF LITERATURE

The extent of the problem follows. Mosher[13] stated the septum could be thrown out of its groove in the premaxillary wing at birth and produce a deformity which would become worse as the child grew older. Metzenbaum[12] reported 1 out of 200 delivery cases in which the septum was displaced from the groove in the maxillary crest. He pointed out that the pressure through the birth canal depresses the nasal septum and if great enough, it will spring the septum out of its groove along the floor. When this occurs, the cartilage cannot spring back spontaneously. If this is not recognized soon, a permanent deflection of the septum results and obstruction occurs.

Ersner[7] stated that during parturition many nasal injuries result because of dystocia. He also stated that the literature mentioned the occipitofrontal and occipitomental diameters of the fetal head, but no mention was made of the occipitonasal diameter. He believed the nose had been overlooked to a great extent in evaluating newborn injuries. He measured the heads of 25 newborns comparing the occipitomental, occipitofrontal, and occipitonasal diameters and found a variation of 1 to 2.5 cm. of outward projection of the occipitonasal over the other diameters. In 23 living infants he had 2 cases of displacement of the columella. He thought it important to correct each deformity immediately, for a fracture results in a displacement and later callus formation. He believed that in his cases a callus which formed would in time produce a deflected septum and also that certain hump noses might be caused by nasal injuries at birth. He examined 20 children with a history of having been born by a cesarean section. In 9 of these cases cesarean section had not been done until instruments had been tried; all 9 children had deformed septums. In 9 there had been an immediate cesarean section, and all of these children had straight septums.

Howie[9] found severe septal deformities in identical twins with no history of external injury which he felt was due to birth injuries. The cartilage in each nose had been dislocated from the bony groove in the maxilla.

Carter[2, 3] found septal deformities very rare in broad noses such as Negroes have. He believed slight injuries led later to severe septal deformities. He stated that 75 per cent of Caucasians have deformed septums in later life. Salinger[14] stated that a large number of septal deformities are cauesd by trauma, and they are greatly overlooked in children. He stressed the point that a child's nose which has been injured enough to swell, bruise, or hemorrhage should be carefully examined under general anesthesia. Firestone[8] considered the lack of attention to the nose to be caused by the primary concern over cranial injuries. He also believed that the psychological effect of nasal deformities on a child and parent is much more than one realizes and should be thought of with every injury at birth or in early childhood.

Adkins[1] stated that most deflections are of the quadrilateral cartilage. He thought the bigger pelvic diameter in Negroes is also a factor causing less injury to the nose in Negro newborns. He believed the septal deviation is largely due to delivery. He even made the statement that those delivered in the left occipito-anterior position are more apt to have deviations to the right, and those in the right occipito-anterior position, deviations to the left. Cottle[5] found in white births 6 per cent of the noses of the newborn showed some deformity. In Mexican newborns the instance was less and in a group of Negro children rare.

Kirchner[10] found that a lateral displacement of the nose in the newborn is usually due to one of two types of trauma: recent, occurring during birth, or prenatal, occurring as a result of pressures applied to the nose during the late months of intra-uterine life. He stated that the first or birth injury type is due to excessive pressure on the cartilagenous portion of the nose during birth and usually consists of dislocation of the septal cartilage from the vomer with the resulting deviation of the cartilagenous portion of the nose from the midline. Usually, the nasal bones are uninjured so the treatment is a simple matter of replacing the tip of the nose in the midline between the thumb and the finger. Swelling or other signs of recent trauma may be present.

The second type of deformity consists of a lateral displacement of the bony pyramid as well as the cartilagenous septum. In contrast to the birth injury this type of displacement cannot be repositioned in midline even by means of instruments. Usually, this deformity is quite marked. Kirchner stated that practically nothing exists in the otolaryngologic literature to guide one in treatment. He reported 3 cases of marked deformity and deviation of the bony arch as well as the caudal end of the septum in newborns. All 3 of these cases had no treatment and after three months the nose resumed the midline position and appeared normal. He thought that this type of prenatal trauma was due possibly to a sudden blow against the bony pelvis or more likely prolonged pressure of the nose against a bony prominence.

Cottle[4] stated that deformities at birth were from two causes. One was from injury during labor. This type should be corrected immediately; otherwise, the deformity will become worse as the child grows older. The second occurs before birth from pressures within the uterus. This type is not as common as the first, but it is a more marked deformity. It is usually completely healed and shows no sign of recent trauma. Most of these cases will improve with time, but a few have to have plastic procedures later.

INVESTIGATION

We studied 106 white, 120 Mexican, and 56 Negro infants seen in the Methodist and Hermann Hospitals in Houston (table 1). They were consecutive cases of birth. In the white group the chin occiput measured on the average 13.7 cm. and the nose occiput averaged 13.6 cm. There were 7 evident external deformities in this group, or a percentage of 6.6. No intranasal examinations were made. All 7 cases had fairly normal labor with no complications. In the Mexican group of cases the chin occiput measured 13.5 cm., the nose occiput 13.1 cm., and the forehead occiput 13.9 cm. There were 5 evident external deformities or a percentage of 4.1 per cent. There were 24 internal deformities involving the septum or the maxillary ridge or a percentage of 20. In the Negro group of 56 cases, the chin occiput measured on the average of 14.9 cm., the nose occiput 13.8 cm., and the forehead occiput 13 cm. There were no external or internal deformities in this group.

TABLE 1.—*Deformities in 282 Consecutive Newborn Infants Seen in Methodist and Hermann Hospitals.*

	White 106 Cases	Mexican 120 Cases	Negro 56 Cases
Measurements (in centimeters)			
Chin occiput			
Average	13.7	13.5	15.0
Greatest	15.6	16.5	17.75
Smallest	12.0	11.5	13.3
Nose occiput			
Average	13.6	13.1	13.8
Greatest	15.0	16.25	15.5
Smallest	12.5	10.1	11.7
Forehead occiput			
Average		13.9	13.0
Greatest		15.0	17.5
Smallest		10.0	11.0
Internal deformities (no.)	?	24	0
External deformities (no.)	7	5	0
Average length labor			
First stage	5 hr.	7 hr. 4 min.	
Second stage	19 min. 7 sec.	28 min.	
Third stage	2 min.	10 min.	
Position			
Right occipito-anterior	5	3	
Left occipito-anterior	2	1	
Left occipitotransverse		1	

DISCUSSION OF FACTORS

The racial characteristics have a great deal to do with the development of nasal and septal deformities. As mentioned previously, numerous authors have stressed the fact that the racial characteristics help determine the frequency of deformities. A composite nasal base picture was made by us by averaging the nasal tip outline of the three groups of cases (fig. 1). This was done by projecting a picture of the base

of the nose on a white piece of paper and making a pencil outline drawing of the tip of the nose, the nostrils, and the upper lip. In each case the picture was adjusted so that the alar-facial junction was superimposed. From these superimposed lines a picture was drawn of an average nose where the lines were the most dense. These pictures show clearly the shape of the nostril and the width of the base. In the white children the tip is considerably elevated, the base is narrow, and the nostrils have an upward tilt. The nose occiput diameter is about equal to the chin occiput. All of these factors plus a smaller pelvis in the mother tend to make injury more likely in this group. Negroes have a low tip, a broad base, and round nostrils which

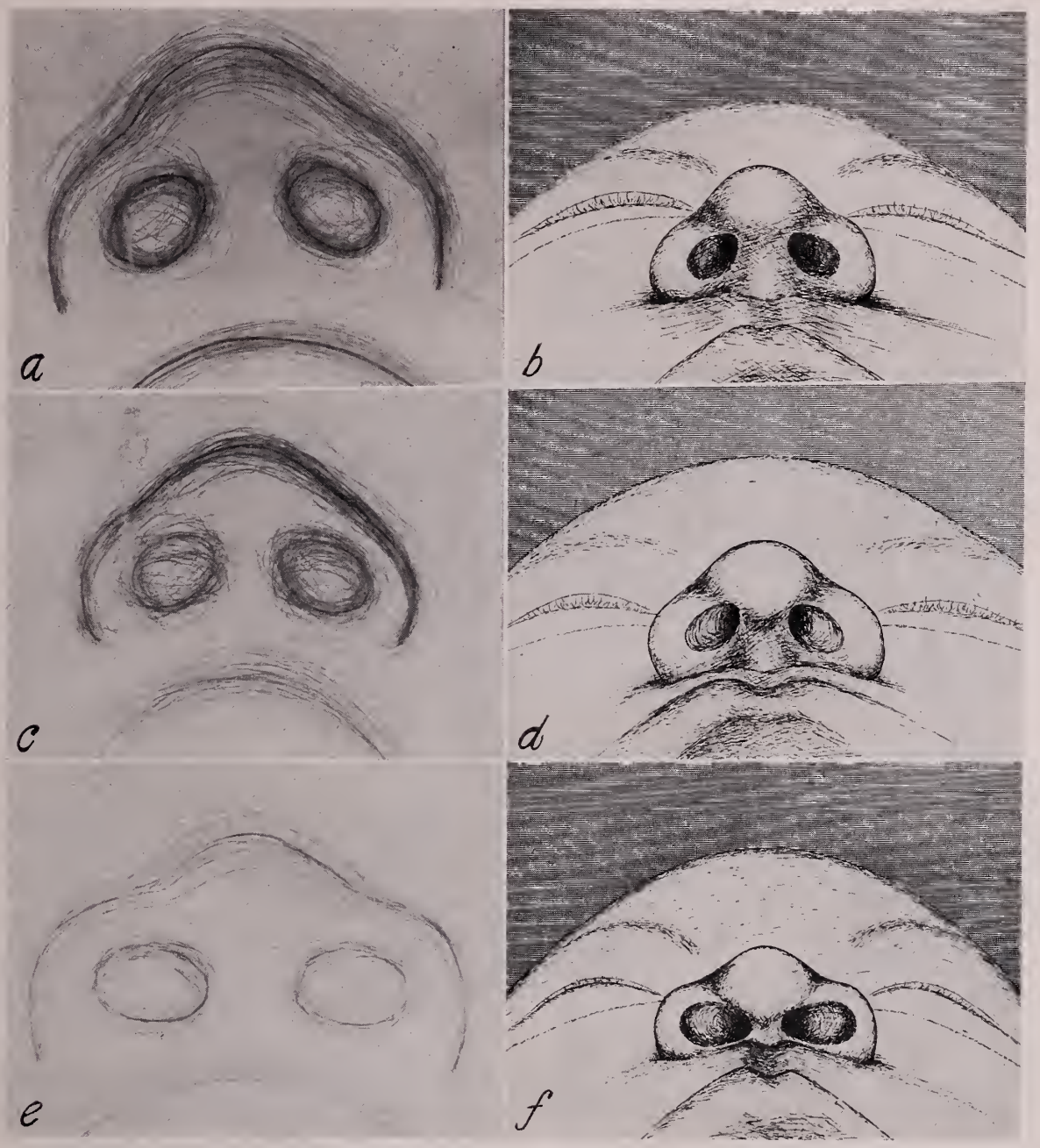

Fig. 1. Composite nasal base lines and base drawings of 250 consecutive deliveries of white, Mexican, and Negro babies in Methodist and Hermann Hospitals.

a. Base lines of 106 white babies.
b. Base drawing of average white baby.
c. Base lines of 120 Mexican babies.
d. Base drawing of average Mexican baby.
e. Base lines of 56 Negro babies.
f. Base drawing of average Negro baby.

are horizontal. The nose occiput diameter is much less than the chin occiput diameter. These factors, with a large pelvis in the mothers, in turn, lessen the chance of injury to the Negro babies' noses. The Mexican babies occupy a somewhat middle ground. The nose is not quite as high, the base is broader, and the nose occiput diameter is less in proportion to the size of the head than the white group but more than the Negro.

Cottle[6] has pointed out that the white race may inherit various factors from their ancestors. They may inherit a large septum but a small nose. The result of this is that the septum is placed under tension and buckling occurs. Thus, there occurs a deformity which develops as the child grows older without any injury. This type of nose is spoken of as one with a tension septum. Cottle also stated that with injuries and with the inheritance of varying growth factors not only is there a deformity of the nose and septum but also there is a deformity in the development of both the upper and lower jaws. The problem often is one that not only involves the septum but involves the entire face including the teeth. Some deformities occur from injuries during intra-uterine life. In our cases there were several marked septal ridges with no evidence of recent trauma. These must have occurred some time before birth.

Klaff[11] in an excellent article on anatomy of the caudal end of the septum brought out clearly that the septum rests in a groove in the premaxilla which, in turn, rests in a groove in the maxilla and this, in turn, is covered anteriorly by a thin projection of bony plate from the maxilla. In other words, the maxilla almost covers up the premaxilla except on the side where the quadrilateral cartilage rests in a v-shaped groove. Fibrous tissue goes from side to side at three junctions. This makes it easy for displacement to occur and also makes it difficult in separating the mucous membrane. Tears are usually produced at one of these junctions in doing a submucous resection. Mosher[13] also brought this out in an article written in 1907.

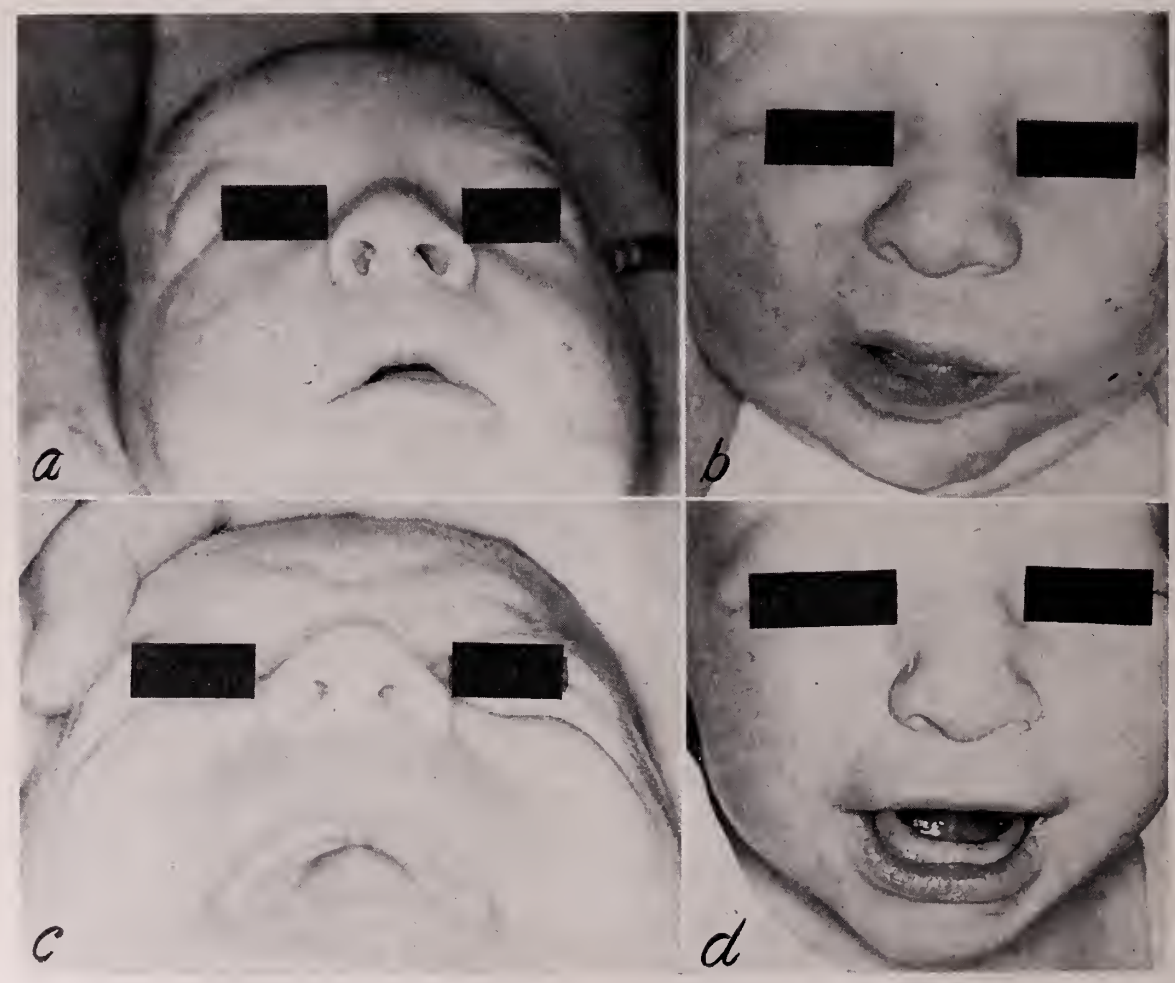

Fig. 2. a and b. Case 1. Deformity shortly after birth from base view and front view.

c and d. Case 1. Six weeks after birth no deformity from base view nor from front view.

TREATMENT

In the treatment of the injuries of the newborn those that have occurred prenatally, of course, cannot be corrected. Time, in Cottle's[4] and in Kirchner's[10] opinion, will partly correct these cases. All authors stressed the importance of immediate correction when the deformity has occurred at time of delivery. If the nose and septum are elevated and molded, the fractures and the displacements can be corrected in most cases. Very careful attention should be given to the location of the septal cartilage in the premaxilla and maxilla grooves. The cartilages of the nose tend to regain their normal shape as time goes on, but they can be helped considerably if pressure is exerted to push the nose back to the midline and to lift the septal cartilage up so that it will slip into the groove of the premaxilla and maxilla. This can be done with preoperative sedation and the use of a small amount of local anesthetic such as 2 per cent cocaine. A long small round instrument is placed in each side of the nose and upward pressure exerted. At the same time the tip of the nose is pressed toward the midline. No splint internally or externally is needed.

Fig. 3. a. Case 2. Deformity shortly after birth from base view.
b. Case 2. No deformity six weeks after birth.

CASE REPORTS

CASE 1.—A baby was born in the Methodist Hospital with a history of finding a deformed nose at birth. The head had been in the pelvis of the mother for two weeks in a right occipito-anterior position. Birth was not unduly long or complicated. Examination showed a nose with the tip bent to the right; the septum was slightly to the left; and the left upper cartilage was pressed down against the septum (fig. 2a and b). The nasal bones were slightly involved. Treatment consisted of lifting up the tip of the upper lateral cartilages and the septum, and moving them back to the midline. This was done by giving ½ grain Seconal one-half hour before operation and using 2 per cent cocaine intranasally. A reexamination made six weeks later showed the nose and septum to be in the midline (fig. 2c and d). There were equal and adequate spaces under each upper lateral cartilage.

CASE 2.—A Mexican baby, born in the House Service at the Methodist Hospital, was found to have the tip of the nose pushed to the right (fig. 3a). The septum was deflected posteriorally to the right. The labor had been normal. The position was right occipito-anterior. Treatment consisted of lifting up and moving the tip back to the center. A recheck at six weeks showed the nose and the caudal end of the septum in midline (fig. 3b). There was still some deformity of the septum in the posterior part.

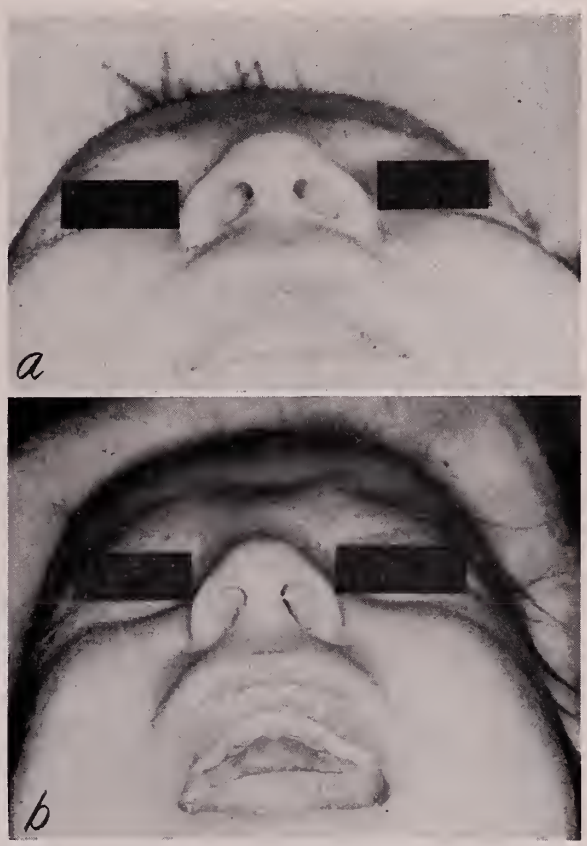

Fig. 4. a. Case 3. Only slight deformity from base view at birth.
b. Case 3. No deformity six weeks after birth.

CASE 3.—A Mexican baby born in the House Service at the Methodist Hospital was found to have a slight deformity of the tip of the nose to the right (fig. 4a). The inferior caudal end of the septum was displaced from the maxillary groove. There was a considerable ridge extending into the left side of the nose near the premaxilla. The labor had been normal and no complications had occurred. The head position was left occipito-anterior. No attempt was made to straighten this nose, and six weeks postoperatively the nose was found to be in the midline (fig. 4b). The deformity where the septum joined the premaxilla and the maxillary crest was still present. This is an example of a deformity which occurred prenatally. Externally there was little evidence of involvement, but as time goes on a marked deformity of the septum will occur without any external trauma occurring to the child.

CASE 4.—The infant was seen shortly after birth with a history of prolonged labor. The position of the head in the pelvis was right occipitoposterior, and low forceps had been applied. There was considerable swelling over the bridge and the nose was bent to the left. The septum along the maxillary crest was not displaced. Under a local anesthesia the nose was lifted up and moved to the midline. Three months later the nose and septum were found to be in midline with no deformity.

SUMMARY

Deformities of the nose in newborn infants are fairly frequent and may be due to prenatal trauma or injury during birth. Incidence of deformity varies between the various races being very low in the Negro race (0 per cent); moderate in the Mexican race (4.1 per cent); and high in the white race (6.6 per cent).

A composite base picture was made averaging a number of newborn noses for the three races—white, Mexican, and Negro—which brought out some of the factors influencing the rate of deformity.

Intranasal injury is more frequent, 20 per cent in our series for the Mexican race, than external injury, 4.1 per cent. The deformity chiefly involves the septum at the junction of the cartilage and premaxilla and maxilla. These cases are usually not discovered until later on in life as there is no sign of external injury. They are the cause of some of the deformed septums found later in life. No treatment at birth is indicated for this type of case.

External injuries are less frequent, 0 to 6.6 per cent, in our series and are due chiefly to trauma at birth. These cases show signs of trauma and deformity externally and internally. Treatment should be given these infants soon after birth by lifting up the nose and moving back to the midline, thus replacing the various anatomic parts in their proper position.

Uncorrected, these changes may develop later in life into a more serious abnormality causing internal and external deformities.

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Lesions of the Eustachian Tube: Management

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THE DIAGNOSIS and treatment of eustachian tube diseases have received increasing attention. The practicing otologist is consulted frequently concerning conditions related to the eustachian tubes. Despite these facts, it is noteworthy that many hospital residents and younger otologists are remiss in their training in dealing with tubal problems and their management.[1] Experience has proved that tubal catheterization is undertaken with considerable reluctance, probably because of inadequate familiarity with the procedure.

Apparent increase in the incidence of serous otitis media (otitis media with effusion) has rendered it highly important at all times to evaluate eustachian tubal function in involved situations. Although Polit-

zer[3] described tubal function and its treatment in 1869, it is only during the past 15 years that the problem has attracted renewed interest.

CAUSES OF OBSTRUCTION

Under the heading of obstructive causes, the most common source is lymphoid tissue. This may result from adenoid tissue, recurrent adenoid tissue, or peritubal lymphoid tissue about the pharyngeal mouth of the eustachian tube or in the fossa of Rosenmuller. Obviously, this is seen commonly in children, especially during the season of the year when upper respiratory tract infections are most frequent. In these patients adenoidectomy, or tonsillo-adenoidectomy, was done. In indicated situations myringotomy, eustachian tube inflation, and spot suction of the fluid contents of the middle ear were performed. Although surgical procedures in themselves may prove successful, irradiation frequently is required as supplemental therapy. In recent years, resort has been to roentgen irradiation of the nasopharynx of patients in whom peritubal lymphoid tissue persisted or recurred after operation. Roentgen irradiation was employed in preference to radium because of our conviction that the pathologic process can be more adequately retarded or controlled by the former procedure. As a basis for our therapeutic plan, an accurate diagnosis is indispensable. This entails satisfactory visualization of the postnasal space, even under general anesthesia, if necessary.

Dr. Claude C. Cody, III, clinical professor of otolaryngology, Baylor University College of Medicine, presented this paper for the Texas Air-Medics Association April 29, 1957, in Dallas.

A plea is made for increased instruction regarding lesions of the eustachian tube and their management. Lymphoid tissue is the most common source of eustachian tube obstruction. Irradiation frequently supplements surgical treatment. Careful history and physical examination are important in diagnosis. The middle ear is affected, and preservation of hearing and of tubal patency is of primary concern. Follow-up care is urgent.

Tumors of the nasopharynx almost invariably obstruct the eustachian tubes. These cases tend to emphasize the necessity of careful nasopharyngeal diagnosis, especially if there is unilateral tubal obstruction as evidenced by unilateral otitis media with effusion.

Nasal and nasopharyngeal infection, frequently preceded by an upper respiratory tract infection, is a rather frequent source of persistent tubal obstruction. This is seen as a pronounced edema and purulent exudate in the posterior choanae, or in the vault of the nasopharynx. Under these circumstances, it is usually desirable to resort to effective hygienic measures before tubal instrumentation is attempted. If, in some long standing cases of tubal obstruction, pus can be seen draining from the maxillary antrum over a tubal orifice, cure of the infection in itself may relieve the tubal blockage.

Nasal allergy always should be considered as a possible source of tubal obstruction. In my experience, this has not been as common as is frequently reported. Antiallergic regimen with avoidance of the offending allergens, or their desensitization, has resulted in alleviation of symptoms.

Aerotitis resulting from air travel, usually in the presence of an upper respiratory tract infection, is a pure and simple mechanical blockage of the eustachian tube. This results in a serous exudate, composed of a thin fluid.[6, 7, 8] In these patients, a favorable prognosis is afforded by indicated conventional therapy.

Chronic nasal infection, especially of the sinuses, always must be borne in mind. One patient with atrophic rhinitis with purulent crusts was seen in my series. The eustachian tubes were actually excessively patent, which allowed constant bathing of the tube and middle ear with pus, with pathologic changes in the mucosa of the middle ear. Cleansing of the nasal cavities of the heavy exudate eventually led to clearing up of the process.

Attenuated otitis media is being seen a great deal these days. Although chemotherapy and antibiotics have resulted in the otitis media becoming sterile and mucoid, these agents have not influenced the fluid content of the middle ear. This important situation requires careful management to prevent possible permanent damage to the middle ear and its structures. When surgical indications for incision and drainage are present, these measures should be done, regardless of how late the physician sees the patient or how little the ear seems to cause trouble. Cultures from these patients are usually sterile, the main presenting symptoms being those of impaired hearing after the child has had conservative therapy for a previous earache.

Malocclusion results in some encroachment on the patency of the eustachian tube. It should be considered when there is no obvious cause of obstruction, and when present, an effort should be made for its correction.

Viral and bacterial infections of the middle ear undoubtedly result in some cases of tubal obstruction

with extension down the tube. It is, however, usually difficult to prove because most cultures of the middle ear, associated with otitis media with effusion, are sterile. Some authors[4] have suspected a viral causative agent.

Trauma either to the tubal orifice or to the eustachian tube itself may occur. This, of course, is an irreversible process. Its diagnosis is thereby quite important in order to assess the proper prognosis in such a case. Trauma may be surgical (that is, adenoidectomy), inflammatory, or following over-enthusiastic attempts at bougienage (therapeutic).

Cleft palate cases frequently develop a tubosalpingitis as a result of the constant bathing of the nasopharynx while in the process of eating and drinking. It is common knowledge that many patients with cleft palate develop otitis media via the eustachian tube. This is observed also in patients in whom postnasal packs are left overlong, or in whom the stomach tube passed through the nasopharynx creates a reaction with subsequent obstruction of the eustachian tube. In some cases of regurgitation in which the nasopharynx becomes infected, the eustachian tube also becomes involved. Careful toilet to the nasopharynx usually clears up the tubal orifice and eventually the middle ear, unless irreparable changes have developed.

In my experience, autonomic dysfunction, sometimes referred to as physical allergy, has been the cause of some of the most difficult and resistant problems of tubal obstruction. Each patient of this group has to be managed individually. It is my thinking that if this phase of obstruction can be conquered, a large number of our most resistant problems of tubal obstruction can be solved. It is my belief, moreover, that many of the so-called allergic cases should be included in this group.

DIAGNOSTIC ASPECTS

In eustachian tube pathology, the history many times will suggest the diagnosis of the condition. The onset of a blocked ear after a cold, or after flying, or a sense of fullness in the head and the feeling as though the head is in a barrel, is good evidence that the eustachian tube on the involved side of the head is not ventilating the middle ear adequately. A history of tinnitus (cracking or popping of the ears), with temporary improvement of hearing, is an important clue. If an ear is partially filled with fluid, the patient experiences an improvement of hearing by tilting the head. Vertigo may be the result of tubal blockage, but one should be on the alert if the only symptom is dizziness. Vertigo may be the result of several processes, and only infrequently because of tubal obstruction. Thus, whereas it is important that a comprehensive history be taken, it is more essential that a good technique be developed in determining tubal patency.

PHYSICAL EXAMINATION

The physical examination is, of course, the most important step in ascertaining the presence of eustachian tubal pathology. The appearance of the tympanic membrane is a valuable sign as to the function or possible obstruction of the eustachian tube. Retraction or bulging of the ear drum, foreshortening of the long handle of the malleus, or the prominence of the short process of the malleus should be sought in every patient. The translucency of the drum, or its thickening and scarring, should be noted. And finally, the presence or absence of fluid in the middle ear must be ascertained. If the observer waits for a fluid line or the presence of bubbles before suspecting fluid in the middle ear, he will surely miss many cases of otitis media with effusion.

In many patients with the middle ear completely filled with fluid, the drum will not be amber or liver colored; it appears reasonably normal. This is probably one reason why the condition is missed frequently and not regarded to be as prevalent as it actually is.

Before resorting to hearing tests, it is well to determine the state of the nose, nasopharynx, and sinuses. This, of course, entails use of all available clinical and laboratory tests, the results of which give a fairly accurate measure of tubal patency and the degree of possible tubal disease. In very young children, Toynbee's maneuver or the transmission of sound through the eustachian tube on swallowing may be of some help. The source of sound is held at the nose, and if the tube opens on swallowing the sound may be heard louder at the ear on that side. Toynbee's maneuver is the to and fro movement of the tympanic membrane on swallowing due to the movement of air in and out of a patent eustachian tube. In small children, these two tests help to give presumptive evidence of a normally functioning eustachian tube. Such tests as the Valsalva maneuver and tubal inflation by Politzer's method, catheter, and bougienage should be resorted to until the true state of the function and patency of the eustachian tube can be accurately determined.

Good technique in tubal catheterization and bougienage is usually not taught to residents even in large medical centers. It can be learned only by long experience on private or clinic patients. Since most patients resent being hurt, a 4 per cent cocaine solution is applied in the nose and to tubal orifice before the inflation procedure is carried out. The nasopharyngoscope is placed in the opposite nasal chamber to inspect the tubal orifice. One should learn to

do this maneuver quickly and painlessly, making sure that the tubal orifice is correctly approached in the process.

In management of lesions of the eustachian tube, there are two objectives to be borne in mind: to preserve hearing and to preserve tubal patency. One may give undue attention to the hearing and miss the actual cause of impaired hearing. The eustachian tube must be maintained patent to prevent middle ear complications.

PATHOLOGIC CONSIDERATIONS

A pathologic condition of the eustachian tube is reflected in the middle ear. (1) Mucus in the middle ear is thick, sometimes almost gluelike with the protein content usually high. It is thought that the fluid most likely is the end result of an old or inactivated infection. The source of the fluid may be from the mucous glands at the medial end of the eustachian tube and, in some instances, added to by goblet cells seen in the lining epithelium of the middle ear and the lumen of the tube itself. (2) Serous fluid in the middle ear is usually of low protein content. The source is from increased capillary permeability in the presence of a negative pressure. This transudate develops as a result of mechanical and not inflammatory causes. (3) Certain types of middle ear blockage result from stenosis of the eustachian tube. The middle ear may be dry with adhesions, the end result of a long-standing tubal blockage, or the stenosis may be limited to the tube alone. This stenosis may be postoperative or postinflammatory. If only partial, it often is amenable to dilation therapy.

THERAPEUTIC CONSIDERATIONS

In management of eustachian tube lesions, to restate, one tries to preserve the hearing. To accomplish this, one must make all possible efforts to preserve eustachian tube patency. Inflation is the first maneuver that should be attempted. This may be done by auto-inflation (Valsalva method), swallowing with the mouth closed tightly, then attempting to build up enough pressure to force air into the middle ear, using the contraction of the tensor and levator muscles of the palate. Next, the use of the Politzer bag preceded by application of vasoconstrictors to the tubal orifice is tried, with the auscultatory tube to determine the patency of the eustachian tubes. Finally, catheterization and bougienage may be resorted to in an effort actually to inflate the middle ear.

Myringotomy should be done on all patients in whom fluid in the middle ear is suspected. In fact, I recommend myringotomy and inflation for all patients in whom the eustachian tube cannot be inflated, or in whom there is the question of tubal obstruction with some diminution of hearing. This may be done without anesthesia if the drum is not inflamed. As a preliminary procedure, inflation before myringotomy forces the drum away from the promontory which would be painful if scratched with the myringotomy knife. It helps to tell the patient that the pain is about the same as when a test specimen of blood is taken from the arm. I suggest the use of a very sharp myringotomy knife. Two incisions are made, one from 9 o'clock to 6 o'clock for the right ear, and one from 3 o'clock to 6 o'clock for the left ear.

When the first incision is made, it is interesting to note how bubbles enter the middle ear, showing the presence of negative pressure. The patient will sense immediately that the ear has become "unblocked." Then, tubal inflation is performed and spot suction made at the site of the two incisions. Rawlings has suggested mass suction while inflating the eustachian tube. The patient is then permitted to go home and employ self politzerization several times a day in an effort to keep the eustachian tubes open.

For the past year, after myringotomy, inflation, and spot suction, the plan of inserting a dry cotton wick in the ear canal against the drum incision, then placing the patient on a combination of an antihistamine and ephedrine by mouth, has resulted in a dry ear and a patent tube, usually after one myringotomy. The patient is maintained on this oral medication for four to six weeks. If there is fluid in the middle ear, the earlier this fluid is evacuated, the more favorable the prognosis for obtaining a dry ear. The longer the fluid has been in the middle ear, and the thicker (more mucoid) it is, the more difficult it is to clear up the ear and tube and prevent recurrence of fluid.

If a child requires myringotomy, the procedure should be done under a general anesthetic to permit a more perfected result. There should follow eustachian tubal inflation and spot suction of the middle ear. Under general anesthesia a more careful examination of the nasopharynx and nasopharyngeal orifice of the eustachian tube is possible. Presently a plastic tube is placed through the myringotomy incision to prevent early closure of the drum incision. Walter P. Work has suggested, in very resistant cases, the creation of a permanent perforation by elevating the annular ligament and removing a V segment of the drum along with a part of the annular ligament. This will sometimes give a dry ear and a permanent perforation. Obviously, this is reserved for those patients who have had repeated myringotomies, with only temporary relief of fluid accumulation. This procedure may be done to prevent a mastoidectomy,

especially if the mucosa of the middle ear, mastoid, and eustachian tube appear to have undergone irreparable damage.

It is assumed that all lymphoid tissue has been removed adequately by surgery, or by surgery and irradiation. Irradiation is most useful if peritubal lymphoid tissue and lymphoid tissue, within the lumen of the tube, exist. The aim is to permit the tube to open by itself for occasional and spontaneous ventilation of the middle ear.

Management of any allergic condition that may exist is essential. Nasal smears, and the history, help in the diagnosis. Preliminary skin tests aid in determining if there is an allergic tendency in the patient.

The incidence of endocrine dysfunction and intrinsic allergy (automatic dysfunction) has been assumed to be more frequent than true protein allergy. Endocrine dysfunction usually is corrected by thyroid, pituitary, and gonadotropic hormones. The boggy, swollen nasal mucosa and eustachian tubes return to normal after indicated therapy is administered for a short period of time. In my part of the Gulf Coast, the weather during certain seasons of the year definitely aggravates the nasal mucosa, producing nasal stuffiness, postnasal discharge, and blockage of the ears. Change of climate often clears up such situations promptly. Air conditioning has been especially troublesome to such patients.

The frequent use of nose drops and inhalers are definitely contraindicated. Pregnancy may greatly aggravate the nasal condition. Physical allergy or automatic dysfunction is helped by oral medication, such as an antihistamine with ephedrine. I have used Novahistine Fortis, phenylephrine hydrochloride, and Prophenpyridamine Maleate, by Pitman-Moore, and this is frequently supplemented with histamine and thiamine hydrochloride in an effort to allow some control over the autonomic function of the nose. In some cases, Bellergal (which contains ergotamine tartrate, a sympathetic inhibitor), Bellafoline (a parasympathetic inhibitor), and phenobarbital (a central and a subcortical sedative) have proved effective. Smoking and other forms of irritation are essentially hazardous in their effects on the nasal mucosa of some patients. Every effort should be made to restore the mucosa to a normal functioning structure.

Management of chronic nasal and sinus infections must be undertaken to ensure a clean toilet of the nasopharynx and the pharyngeal orifices of the eustachian tubes. When all else is in order, a tubal blockage with edema will persist in the presence of a low grade suppuration of the maxillary antrums or the ethmoid sinuses.

Blocked eustachian tubes should be treated early and often, to prevent irreversible changes. Self use of the Politzer method (after Rawlings) and pneumomassage have proved of value in maintaining ventilation of the middle ear, especially in resistant cases. Occasionally, the creation of a semipermanent perforation, or even a permanent perforation, may be resorted to, but only as an ultimate means of keeping the middle ear dry.

Rarely is mastoidectomy required. I have resorted to this step only when, (1) excessive fluid is obtained, obviously, largely coming from the mastoid (2, 3, or 4 cc. of fluid obtained after myringotomy and mass suction); (2) a well pneumotized temporal bone is present; (3) the tube is largely patent; and more important, (4) the hearing returns to a useful practical level after inflation and removal of the fluid.

Follow-up care of these patients is urgent. This is especially true of children who have had a previous tonsillectomy and adenoidectomy after which the ears have cleared up, but further recurrence either in adenoid tissue or in hearing loss have occurred. Adequate management is easier the earlier therapy is begun. Periodic audiometric check-ups, again especially in children, should be stressed, for one ear, or even both, may be impaired and go unnoticed for a long time.

Finally, it is hoped that the young otologist will endeavor in every instance to study the eustachian tube, its function, and its possible pathology. Many of our routine office patients have symptoms relating to this oft neglected and overlooked structure. A plea is made for increased instruction to our residents and even to our medical students, so that they may gain a better appreciation of lesions of the eustachian tube and their management.

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Veterans Administration hospitals are safe places for volunteers to work, so far as danger of getting tuberculosis goes. Although tuberculosis afflicts about one out of every 1,000 persons in the general population, a survey of Veterans Administration hospitals and other installations showed not one of the 11,375 volunteer workers developed the disease after coming on duty.—Sc. News Letter, Nov. 3, 1956.

Discarding Old Ideas in Otolaryngology

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THOSE of us out of medical school more than 20 years especially must guard against stagnation in practice. That is why we attend scientific meetings. What progress in our specialty have we missed? I do not believe we have changed our fundamental ideas of pathology enough. We have made superficial changes in treatments without basic change in thinking. Of course we must balance this with full realization that basic science does not change and with full appreciation of the value of the old and the proven. It is not easy to decide what to discard and what to hold.

Dr. Thomas W. Folbre, San Antonio otolaryngologist, presented this paper for the Section on Eye, Ear, Nose, and Throat April 29, 1957, at the Texas Medical Association annual session in Dallas.

Eight frequently used outworn diagnoses are enumerated. Chronic ear canal itch, commonly called "fungus," is more often a dermatitis or eczema. Vascular pain is still mistakenly called neuritis or neuralgia. Headache from vascular or muscle tension causes is too often blamed on sinuses. Inner ear disease is mistakenly blamed on the eustachian tube. In mastoid and sinus surgery too much emphasis is still put on tissue removal rather than on ventilation and drainage.

I do not believe that the role of vascular pathology in ear disease and headache has been stressed sufficiently. In practice we still have too many surviving ideas of the anatomical era of otolaryngology and have not shifted toward physiology enough. Some of our old ideas of the anatomical era have been so ingrained that they appear in our thinking without our realizing it. The basic importance of ventilation and drainage in sinus and ear disease is still not given its proper place.

OLD IDEAS

Let me enumerate old ideas that it seems to me should be discarded.

1. Chronic mastoiditis is a bony disease, the main correction of which is removal of diseased bone. This is not correct. Essentially, the condition consists of a locked off cavity infection that does not have proper ventilation and drainage. The mistaken bony disease idea leads to concentrating in surgery on removal of diseased bone, whereas the main concentration should be on thorough exteriorization of the cavity into the ear canal for purposes of ventilation and drainage. This principle holds true whether cholesteatoma is present or not. For example, let us say a surgeon operating for a chronic draining ear thinks he does such a thorough simple mastoidectomy that it is not necessary to connect the mastoid cells with the canal. He thinks he is operating to remove all diseased bone and has left out the main purpose for which operation was indicated, namely, permanent ventilation and drainage of the cavity. The principle of operating for ventilation and drainage often enables us to preserve the ossicles and thus save more hearing. I do not wish to oversimplify the radical mastoid operation but only to emphasize the main condition. Bony disease exists but it is secondary to the adjacent cavity infection. The infection is usually caused by a mixture of saprophytic bacteria that would not grow if the cavity were wide open.

2. Chronic maxillary sinusitis with a thick lining membrane is caused by a diseased membrane that needs removal. This is wrong. It is a cavity infection that does not clear up because of improper ventilation and drainage. It is corrected by making a large window into the antrum through the inferior meatus. In 9 cases out of 10 the thickened membrane then returns to normal. The Caldwell-Luc operation rarely should be needed.

3. Sinusitis is a major cause of headache. In reality sinusitis accounts for only about 5 per cent. The two main causes of headaches and head pains are neurovascular and neuromuscular irregularities. Most headaches can be treated by the otolaryngologist as well as or better than by any other physician, especially when the patient insists that the "sinusitis" be treated too. I know of nowhere in the practice of medicine that treatment is less of an exact science than in the management of headache. One has to base his treatment on what he guesses is the probable pathologic physiology of the pain. To think in terms of stretched blood vessels and tense muscles is an advance over old ideas of the anatomical era.

4. Supra-orbital neuralgia, sphenopalatine neuralgia, and glossopharyngeal neuralgia are nerve conditions, the causes of which are undetermined. This does not make good sense. How much better is the concept of a pain from blood vessel stretching, caused

by a disturbance in the normal vasomotor apparatus. In some people this apparatus goes haywire easily. The most accepted opinion is that the vasa vasorum are responsible. The small arterioles that supply blood to a section of arterial wall become spastic from vasomotor overactivity. The section of arterial wall becomes edematous and weak due to lack of blood supply and stretches under pressure of the blood. We know that blood vessels are painful when stretched. We know clinically that the arteries such as the supra-orbital and the temporal are found to be tender to touch. We know that vasomotor disturbances of the head and neck are common because of thalamic connections of head and neck sympathetic fibers. The thalamus, brain center for emotions, has direct connections with the head and neck sympathetic systems, but not with the sympathetic system lower down. This explains why localized vasospastic disturbances of the head and neck are more common than in the rest of the body. A generalized vasospastic condition of the arterioles is the cause of hypertension. These facts indicate that there is a very reasonable basis for vascular pain. It seems silly to cling to the diagnosis of neuralgia with the cause undetermined. Supra-orbital neuralgia can be explained on the basis of supra-orbital vascular pain. Sphenopalatine ganglion neuralgia and glossopharyngeal neuralgia usually can be explained by a maxillary artery and a carotid artery vascular pain, respectively.

5. The origin of Bell's palsy is in the facial nerve; the cause is undetermined; and there is no surgical treatment. There is great evidence to show that the cause is usually a neurovascular disturbance with edema in the facial canal and that surgical decompression is often indicated. There is also evidence that some trifacial neuralgias are neurovascular in origin.

6. A transient stuffy ear with popping always means eustachian tube trouble. In reality, the inner ear is usually at fault if there are no nasal symptoms. It is probable that neurovascular disease accounts for the inner ear trouble. I realize I am on unproven ground here, but patients demand treatment and we must therefore decide on the probable condition on which to base therapy. Patients who have inner ear disturbances are very often the same ones who have vasomotor rhinitis and vasomotor (or vascular) headaches; this fact is to me of important practical significance. Localized vasomotor arteriolar vasospasm and edema again provide the most reasonable explanation yet offered for this condition. In going over the past histories of these inner ear cases with a stuffy ear complaint, one is impressed with the time wasted on eustachian tube treatment. Here is a rather bothersome hangover of the anatomical era. One might ask, How does the inner ear pop? The answer is that the inner ear has canals and ducts that get blocked; these ducts can pop open as does the eustachian tube.

7. Chronic conduction deafness is usually catarrhal in origin. In my practice it is more often otosclerotic in origin. We see otosclerosis that for years has been mistreated by tubal inflation, radium, and the like. A common story of otosclerosis is that the patient has been treated in the past for retracted ear drum. The desire to find drum disease to explain hearing trouble has been so great that some physicians see retraction that is not there. Years ago otosclerosis was often diagnosed only late in its course. I can remember a few cases I failed to recognize. Even the authorities failed to realize how common the disease was. I recall hearing prominent otolaryngologists saying otosclerosis was being diagnosed too often. They were wrong. A confusing thing is that recurring catarrhal otitis superimposed on otosclerosis is fairly common. Autopsy studies on premature infants dying at or soon after birth have shown that an otosclerotic focus can be found in 6 per cent. Many people have silent foci that never become symptomatic. Otosclerosis is a much more common disease than we formerly thought.

8. Chronic external otitis is usually caused by a fungus or bacterial infection. This holds true for acute external otitis, but the chronic case is almost always based on dermatitis. The commonly heard statement by patients that they have a chronic incurable fungus infection of the ear is a regrettable fallacy. Personally, I have never seen a case of chronic incurable fungus external otitis. These cases are dermatitis based on three main causes. The causes in my opinion in order of frequency are scratching or picking the ears, seborrheic dermatitis or eczema, and atopic (contact) dermatitis or eczema. All three causes may be seen in one case. A seborrheic dermatitis may lead to scratching, which in turn leads to contact dermatitis. Secondary infection (usually saprophytic bacteria or fungi) due to scratching is common in all cases. The infection is relatively easy to cure. What is difficult is to break the scratching habit and prevent reinfection. A common complicating factor is ear skin allergy to allergens on the scratching fingers. The skin becomes sensitized to almost anything that the fingers might have on them or to the bacteria in the ear. It might be compared to a daily reimposed scratch test leading to sensitization of the skin. Let us say ear skin is allergic to newsprint. Then is it not sensible to keep the fingers off the ear? Itching often must be relieved by steroids or roentgen ray in order to break the cycle. Patients have to be educated gradually to the rules of proper ear hygiene, mainly the rule of hands off. Many culture and allergy tests that I have seen done in these cases often do not help unless the fundamental pathologic chain of events is understood. Fifty years ago

otolaryngologists preached the hands off rule of hygiene for the ears, because they noticed that the patients who dug into and scratched their ears had chronic ear canal trouble. Later on the emphasis shifted so as to blame fungus infection. Then cultures revealed the bacteria were usually responsible. Recently the emphasis is on the allergic dermatoses. Now I am suggesting that we go back to the hands-off-ears rule of hygiene as the fundamentally significant point in the pathology and the treatment. Here is one old idea that should not be discarded.

When some of the worst cases are cured, the patients are so susceptible to recurrence that they must be educated never to touch their ears with their hands at all. Hydrocortisone ointment is useful in these cases to stop recurring itching, but the cotton on the applicator should not be touched by the fingers. Ready made applicators must be used to avoid getting allergens off the fingers onto the cotton.

SUMMARY

What seems to me to be the most common basic errors in ordinary otolaryngologic practice today are enumerated. Hangover ideas from the old "anatomical era" are still bothersome. We have not fully appreciated the principle of ventilation and drainage. The importance of neurovascular disease has not sunk in. Too many patients are told they have chronic incurable fungus ear infection. Our chief errors in practice have been in fundamental concepts of pathology.

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ABSTRACT OF DISCUSSION

DR. FRED R. GUILFORD, Houston: Dr. Folbre's subject is an interesting and timely one. In regard to the surgical treatment of suppurative changes in the middle ear and mastoid, he has emphasized the importance of preservation and improvement of hearing when possible, in conjunction with removal of associated mastoid lesions. Adequate mastoid surgery often allows for complete removal of mastoid disease including involved mastoid cells, granulation tissue, and cholesteatoma, when present, without complete removal of the ossicular chain. With proper study of the cause for continued drainage in the form of cultures and sensitivity tests and applied indicated conservative therapy, infections limited to the middle ear often may be controlled.

When mastoid disease is suspected, the antral area can be explored through an endaural or postauricular incision without removal of the bony external canal wall. When necessary, simple or modified radical surgery with removal of the bony canal wall, is performed. When the antrum, epitympanic area, and mastoid are found to be clear of disease, the incision is closed without further mastoid surgery. The integrity of the ossicular chain may be investigated via the stapes mobilization approach when indicated. When the physician is satisfied that all middle ear and mastoid disease is controlled, myringoplasty techniques for the repair of tympanic perforations, or tympanoplasty techniques when the ossicular chain is involved, may be applied. This plan allows for investigation and complete removal of middle ear and mastoid disease with an excellent chance for restoration or preservation of the hearing function. I believe the classical radical mastoidectomy with its destruction of the middle ear air space and ossicular chain will have limited application in the future approach to this problem.

Dr. Folbre's discussion of modern trends in regard to therapy of mastoid disease, sinus disease, and vasomotor changes in relation to the ear, nose, and throat deserves mature consideration and an expression of appreciation.

Intussusception—Operative Versus Nonoperative Treatment

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FOR MANY YEARS in America and in England, operative reduction of acute intussusception in infants and children has been widely accepted as the treatment of choice. Recently, however, the policy of reduction by hydrostatic pressure with barium enema, as practiced in Australia and in the Scandinavian countries, has been promoted in this country. A criti-

Dr. J. W. Duckett, from the Children's Medical Center in Dallas, presented this paper for the Section on Surgery, April 30, 1957, at the annual session of the Texas Medical Association in Dallas.

For many years surgical treatment of acute intussusception has been practiced successfully. Recently Ravitch demonstrated that a properly controlled nonoperative method (barium enema reduction under fluoroscopic control) may be used with equal success and without the hazards of operation. This method has a definite value only for favorable cases and in a hospital under a surgeon's supervision, and the greater number of cases still are best managed by primary operation.

cal evaluation of the two policies is now becoming necessary.

Mortality with operative treatment during the early part of this century was appallingly high but has been steadily reduced. A number of recent series are reported with mortality ranging from 0 to 4.8 per cent. At the Boston Children's Hospital, the experience reviewed by Gross shows that mortality from 1908 to 1912 was 59 per cent, but from 1948 to 1950, there were 92 patients operated on without a death. Other reports showing no mortality or low mortality rates are listed in table 1.

TABLE 1.—*Reports of Favorable Results from Operative Treatment of Intussusception.*

Author	Location	Dates	No. Cases	Mortality (%)
Richter and Silver	Chicago	1946-1951	48	0
Packard	Denver	1944-1954	86	0
Condon and Oberhelman	Chicago	1946-1955	58	0
Jones	Newcastle, England	1951-1953	91	1.1
Thatcher	Milwaukee	1947-1953	53	1.9
Goldenberg	New Haven	1942-1953	37	2.7
Santulli and Ferrer	New York	1949-1954	41	4.5
Francis and Friedman	Providence	1933-1955	42	4.8

Earlier diagnosis as well as improvement in medical and surgical care are cited by all authors in accounting for the lowering of operative mortality. The experience at the Children's Medical Center in Dallas compiled in tables 2 and 3 illustrates strikingly the vital importance of early diagnosis and treatment. During the period of this study, from 1942 to 1957, there were no deaths in patients treated within 48 hours from onset of symptoms. One of the 7 fatalities in this series of 67 patients was of a month old infant admitted in a moribund state with bloody diarrhea of two days' duration. No treatment other than supportive measures was possible and diagnosis was made at autopsy. One died after operative reduction following a seven day illness. Another died following difficult operative reduction done 48 hours after apparent reduction with barium enema; this case is of especial significance. The 4 remaining deaths followed resection of irreducible intussusceptions.

It seems obvious from such statistics that fatalities are attributable not as much to the failure of the operative principle as to delay in diagnosis and initiation of effective treatment.

In spite of occasional deaths, mostly in neglected cases, the mortality rate continues to decline. In our series, during the years 1942 through 1949 there were 36 cases with 5 deaths, a mortality of 13.8 per cent. During 1950 through March, 1957, there were 31 cases with 2 deaths, a mortality of 6.4 per cent. While this small number of cases has no true statistical significance, a definitely favorable trend is indicated. It is good, but obviously not good enough. Is there a method other than surgical which might further improve results?

As previously stated, surgical treatment of intussusception has been employed almost exclusively in this country and in England. Reduction by hydrostatic pressure has been preferred for many years, however, in certain foreign countries, especially Scandinavia and Australia. In 1926, when mortality rates with surgical treatment ranged from 10 per cent to 45 per cent, Hipsley in Australia reported 100 cases treated by nonoperative means with a mortality of 5 per cent. It is surprising that such a report did not attract more users of the method in this country, but it was becoming apparent that results from operative treatment were improving and only a few adopted conservative treatment.

Early efforts at conservative treatment made use of plain enemas or colonic irrigations with or without massage or manipulation of the abdomen. Reduction by barium enema under fluoroscopic control was introduced in 1927 independently by Olsson and Pallin in Germany, by Pouliquen and De la Marnierre in France, and by Retan and by Stephens in America. Ravitch at Johns Hopkins is probably the most enthusiastic and successful advocate of controlled barium enema reduction in this country today. His are the only published reports from American hospitals in which barium enema reduction was used as the method of primary treatment in practically all cases since 1946. His results have been excellent, comparing favorably with the best results reported by those using operation as primary treatment. He has treated 72 cases with only 1 death.

It is important to note the use of the term "primary treatment." Obviously, operation with its inherent risks could be abandoned if all intussusceptions could be safely and completely reduced by controlled

TABLE 2.—*Acute Intussusception at Children's Medical Center in Patients 1 Month to 9 Years of Age.*

		Treatment					Mortality Duration	
	Total Cases	None	Enema Reduction Barium	Enema Reduction Plain	Operative Reduction	Resection	<48 Hr.	>48 Hr.
1942-49	36		3	3	24	5	0	5
1950-57	31	1	2	1	26	2	0	2
Totals	67	1	5	4	50	7	0	7

barium enema. The method has certain limitations, however, and these are frankly and emphatically recognized by Ravitch. He states, "The treatment of choice for intussusception in infants and children is radiologically controlled hydrostatic pressure reduction with barium enema, followed by operation if necessary to confirm or complete reduction if the lesion persists." Again he states, "Reduction by barium enema is as much a surgical procedure as is the closed reduction of a fracture. It should be performed in a hospital with fluids or blood being administered and the operating room in readiness. We feel strongly that while the cooperation of a pediatrician and radiologist is helpful and important, hydrostatic pressure reduction should be undertaken by the surgeon whose responsibility it is to decide whether an open operation is to be performed." Among the 72 cases treated with barium enema by Ravitch, 19 required immediate operation either to confirm or to complete reduction.

TABLE 3.—*Analysis of 7 Deaths from Acute Intussusception at Children's Medical Center.*

1. No operation (autopsy)	Admitted moribund, bloody diarrhea 2 da.
2. Operative reduction	48 hr. after apparent reduction with barium enema. 72 hr. after onset, bloody diarrhea.
3. Operative reduction	Diarrhea 7 da., bloody 12 hr.
4. Resection and anastomosis	Bloody diarrhea 5 da.
5. Resection and anastomosis	Bloody diarrhea 3 da.
6. Resection and anastomosis	Diarrhea 6 wk., bloody 24 hr.
7. Exteriorization	Died on table, bloody diarrhea 3 da.

From Denmark, where the barium enema method has been in common use for many years, Nordentoft and Hansen have reported on 1,838 cases collected from all Danish hospitals. A critical evaluation of the results is not too favorable for the use of barium enema reduction as primary treatment. In the years 1928 through 1935, there were 296 patients treated by hydrostatic pressure methods alone (barium enema, massage, water enema) with a mortality of 5 per cent; 289 patients treated by a hydrostatic pressure method requiring secondary operation with a 22.8 per cent mortality; and 450 patients by primary operation with a 25.8 per cent mortality. In the years 1944 through 1949, there were 413 patients treated by barium enema alone with a mortality of 0.5 per cent, but 302 patients were treated with barium enema requiring secondary operation with a mortality of 16 per cent; 74 patients were treated by primary operation with a mortality of 18.9 per cent. Although these statistics show in Denmark a definite superiority of primary conservative over primary operative methods, the over-all mortality rates are not as good as many of those reported in this country for similar periods, with primary operation in the majority of cases.

The use of barium enema under fluoroscopic control for reduction of intussusception is on the increase in this country. There is no doubt that it has definite value, but there is considerable doubt as to whether or not it should be used widely as primary treatment except in the most favorable cases. Ravitch has shown unquestionably that he can use it successfully as primary treatment, but it is likely that his success is attributable more to his own skill, judgment, and attention to detail than to superiority of the method itself.

It seems wise now to take a broader view of the treatment of intussusception than has been held in the past. As expressed in a recent article by Packard and Allen at the Denver Children's Hospital, "An attitude of always operation and never closed reduction has not been changed to always primary enema and never immediate operation. There has been, however, a trend toward primary enema in proper cases with operation to be expected in many." This is the point of view held at the Children's Medical Center in Dallas and also expressed by recent authors such as Goldenberg, Thatcher, Orloff, Francis and Friedman, Santulli and Ferrer, and Condon and Oberhelman.

Diagnosis of acute intussusception usually can be made without difficulty from the classical history and physical findings. Establishment of diagnosis by barium enema occasionally may be necessary and in some cases, unexpected reduction of the intussusception may result from the diagnostic barium enema. Even if there is apparently complete reduction shown under the fluoroscope, the patient should be immediately admitted to a hospital if not already there. He should be kept under careful observation for at least 24 hours and operation done immediately if symptoms persist or if evidence of recurrence appears.

If barium enema reduction is definitely planned or contemplated, the patient should first be admitted to a hospital and the operating room alerted. The procedure should be carried out preferably by the surgeon, but at least by the radiologist in the presence of the surgeon. The enema must be given with great care and gentleness. It is none too pleasant an experience for a well and healthy adult and may prove terrifying and exhausting to a sick infant or child. The bulb of the rectal tube must be accurately placed just inside the anal sphincter and inflated cautiously. Hartman has recently reported rupture of the bowel at the peritoneal reflection by an improperly placed and over-inflated bulb. The barium suspension should be administered under low pressure, the container never raised more than 3 feet above the level of the rectum. Higher pressures may rupture a segment of gangrenous intestine. Prolonged or repeated attempts should be avoided.

Interpretation of completeness of reduction is a

grave responsibility of the surgeon first and of the radiologist in support. The advancing head of the barium column must be observed repeatedly under the fluoroscope. Reduction cannot be considered complete until barium flows freely through the ileocecal valve and fills several loops of ileum uniformly. If the slightest doubt remains as to completeness of reduction, the patient should be transferred immediately to the operating room for surgical exploration.

Barium enema reduction should not be attempted when duration of symptoms is longer than 24 hours. This arbitrary time limit might be extended somewhat if symptoms are mild but should be shortened if symptoms are severe and rapidly progressive, especially if a shocklike state exists. The time element in successful treatment by any means has been well documented. In our own series, no deaths occurred in patients treated within 48 hours after onset of symptoms, but in most series, the mortality rate has rapidly risen after 24 hours. Modern methods for combating shock, dehydration, and toxemia may reduce somewhat the hazards of delay and should be employed promptly and vigorously in all cases, but earliest possible definitive treatment is still of prime importance.

An unfortunate aspect of the trend toward wider use of barium enema reduction has arisen. Its advocates have argued that since the average pediatrician or medical practitioner is somewhat resistant to operation, he will be more likely to call for surgical consultation early if he knows that barium enema reduction will be tried first and operation possibly avoided. Actually in many cases, the patient has been taken first to a radiologist, not always in a hospital, where barium enema reduction is attempted. If the attempt is not successful, dangerous delay of operation results. Some of these patients have been sent home after apparent reduction only to be rushed to a hospital later when the mistake is realized. One of our fatalities resulted from this type of mismanagement, and others have occurred elsewhere.

Another objection to the use of barium enema reduction is the possibility of overlooking a contributory bowel lesion which should be removed surgically. Although in approximately 95 per cent of intussusceptions in infants and children there is no recognizable causative factor, in the remaining group Meckel's diverticula, polyps, or tumors may be present.

CONCLUSION

Barium enema reduction under fluoroscopic control has a definite value in the treatment of acute intussusception in infants and children. It should be used, however, only for the most favorable cases and only in a hospital under the supervision of a surgeon so that operation may be done if necessary without dangerous delay. The greater number of cases will be managed best by primary operation.

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U. S. Trains 6,700 Foreign Doctors

To help meet the world's need for better medical care last year, the United States trained 6,700 foreign interns and residents from 88 countries. An increase of 10 per cent over the previous year, the substantial rise was due chiefly to the greater number of young physicians coming here from the far, near, and middle east. More than two-thirds of these doctors traveled from these areas and Latin America, reflecting the need in those countries for improved medical care and lack of local training facilities.

True progress in law, in medicine—in almost any area of vital human concern—will come from the discovery and cultivation of common interests by people who share a common purpose, unadulterated by special political objectives or ideological differences.—Editorial, World Med. J., May, 1956.

Technical Aspects Of Vagotomy-Gastroenterostomy

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THIS PAPER presents certain technical details of the vagotomy-gastroenterostomy procedure that I use. No discussion of the merits of the procedure as a surgical principle is included, but the results in about 50 cases have been very satisfactory.

Many articles on the technique of vagotomy have been published, most of them giving a detailed description of the anatomy of the vagi above and below the diaphragm,[1-12, 14-16, 18-21, 25-28] and every surgeon undertaking the operation should review this literature. Jackson[14-16] made a particularly detailed study, and those of Bradley,[1, 2] Chamberlin,[4] Dragstedt,[6-10] Mulholland,[20] and Walters[25-28] are especially helpful.

Dr. J. Peyton Barnes presented this paper before the Texas Medical Association's Section on General Practice April 29, 1957, during the Association's annual session in Dallas.

Technical steps to make vagotomy-gastroenterostomy easier and safer to perform are described. Preoperative and postoperative care is discussed. The procedures outlined are those used by the author in more than 50 cases with satisfactory results.

In brief, anatomists now agree on four main points:

1. The anterior, or left vagus, nerve and posterior, or right vagus, each contain both right and left fibers.
2. Branches leave the anterior trunk just below the diaphragm and pass through the gastrohepatic omentum to the liver.
3. The gastric branches of both vagi are distributed mainly to the lesser curvature of the stomach.
4. The posterior branch sends a branch to the celiac ganglion.

Furthermore, in from 60 to 80 per cent each vagus nerve will emerge through the esophageal hiatus as a single trunk; but in many cases one or both vagi will enter as a divided trunk.[2, 14-16, 23] Thus, a careful search must be made for all strands or the vagal section will be incomplete. Based on 100 dissections, Bradley,[1, 2] concluded that in 90 per cent of cases a transabdominal approach will allow as complete a division as the transthoracic, and the transabdominal is now the one of choice. Most of the literature reveals that a complete vagal denervation is the best procedure; however, Jackson[15] has described a technique which he thinks may accomplish complete gastric denervation and yet leave the main posterior trunk with its celiac branch, thus preserving the innervation to the spleen, kidneys, most of the pancreas, small intestine, large intestine, the distal part of the transverse colon, and part of the liver. His results are as yet unpublished. Dragstedt has expressed the belief that a transabdominal approach is best, and that the denervation should be as complete as possible. With this I agree.

PREOPERATIVE CARE

Many of these patients have considerable gastric retention. I hospitalize all of them for a few days preoperatively, put them on a liquid diet, and wash out the stomach each morning before any feeding and again at night 2 hours after the last feeding with from 1 to 3 quarts of warm soda bicarbonate solution. The tube is removed after each irrigation. The usual electrolyte studies, vitamin deficiency, and blood lack are taken care of during this period. After washing out the stomach on the night before surgery, 2 ounces of castor oil are placed in the stomach and the tube is removed. This drug is so effective in evacuating the colon and producing a scaphoid abdomen that its use is considered important.

On the morning of surgery an Einhorn double-lumen gastroenterostomy tube is passed, and I usually do this myself. One lumen goes all the way to the weighted tip, and the other lumen stops about 12 to 16 inches short of the end. When the gastroenterostomy is half completed, this tube is passed on down into the distal jejunal segment for about 12 inches. The tube permits continuous feeding postoperatively, with simultaneous deflation of the stomach. Any type of liquids may be introduced, and any liquids taken orally are sure to follow the tube through the anastomosis into the jejunum.

OPERATIVE TECHNIQUE

A true midline incision in the linea alba is used, and nearly always is adequate. It can be extended by making an angle cut across the left rectus muscle, as Dragstedt recommends, or one can remove the xiphoid process. I have done both, and where the

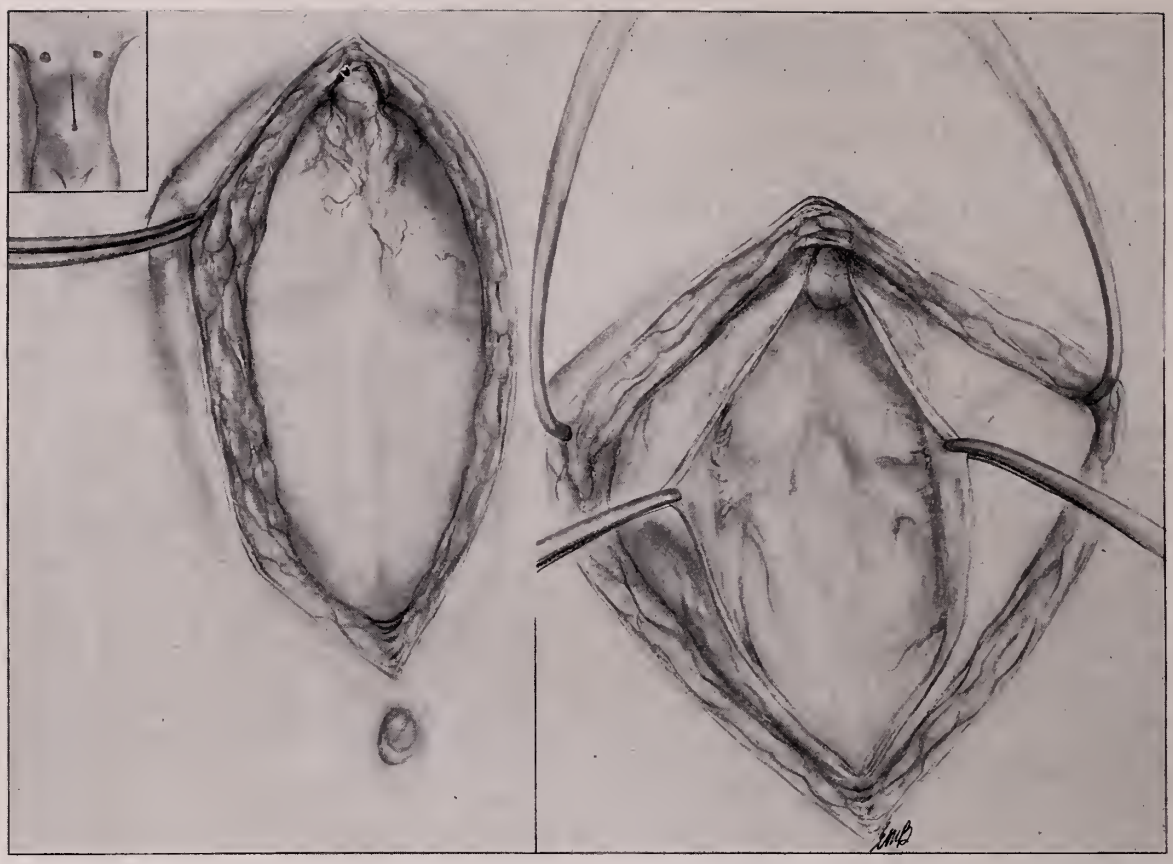

Fig. 1. The insertion shows the extent of skin incision; left is the linea alba; the right panel shows the incision in the linea alba with the peritoneum being pulled away from fascia on both sides.

xiphoid is very long or a bifid type, its removal surely does increase the exposure greatly. The transverse incision of Casberg[3] I have not used. After the incision is made precisely in the linea alba, the peritoneum is peeled away on both sides as widely as possible before it is opened (fig. 1). This allows wide retraction later of the edges of the incision without tearing the peritoneum. The peritoneum is now opened the full length of the incision, and at this point one decides whether and how to lengthen the incision. The table now is placed in a fairly sharp degree of reverse Trendelenburg, and this helps to displace the stomach and colon downward somewhat, with minimum traction. Next, a careful survey of all abdominal contents is made.

At this point many men sever the avascular ligament of the liver, but if the left lobe of the liver can be retracted adequately, this step will not be necessary in most instances. Crile[5] does not reflect it at all; by using the following technique I have not found it necessary either: The left costal margin is strongly retracted by the first assistant, using a wide-bladed retractor. The operator locates the back edge of the left lobe of the liver just over and a little to the left of the esophagus. This is easily done by palpating the duodenal tube. Then a wide-bladed ribbon metal retractor is slipped under the left lobe of the liver to this point, and the wide-bladed Deaver retractor, covered with smooth stockinette (fig. 2) is passed behind the metal blade, and the metal ribbon is removed. Unless one does it this way, it is difficult to pass the stockinette-covered blade to the exact spot one wishes. Now the second assistant retracts upward and outward, with just enough inward tipping of the retractor blade to pull the left lobe of the liver

Fig. 2. The wide-bladed, gently sloping Deaver retractor, above, is covered with stockinette, below, to allow harmless and easy retraction at the left lobe of the liver.

slightly toward the costal margin. This procedure usually exposes the desired area very well. Placing a large lap sponge on the anterior surface of the stomach, the first assistant or the surgeon can gently pull the stomach downward without trauma. Palpation of the duodenal tube identifies the esophageal hiatus, and one should try to see the little whitish line that represents the fascial edge crossing this hiatus (fig. 3a). This is just about the best place to open the peritoneum. Whether one finds it or not, the peritoneum should be opened just below the junction of the crura of the diaphragm, and this opening is made through the peritoneum only. There are two plexuses of vessels here, one from the inferior phrenic arteries above, and the other from the left gastric artery below. If one stays between them, bleeding, which can assume frightening proportions, will be at a minimum. As soon as the crural junction is exposed, the anterior surface of the esophagus is gently cleared using a peanut sponge in a very long holder (fig. 4). This does not cause much bleeding. Then the right index fingertip is worked bluntly into the hiatus, and the esophagus partially mobilized. Now the left, or anterior, vagus nerve can be

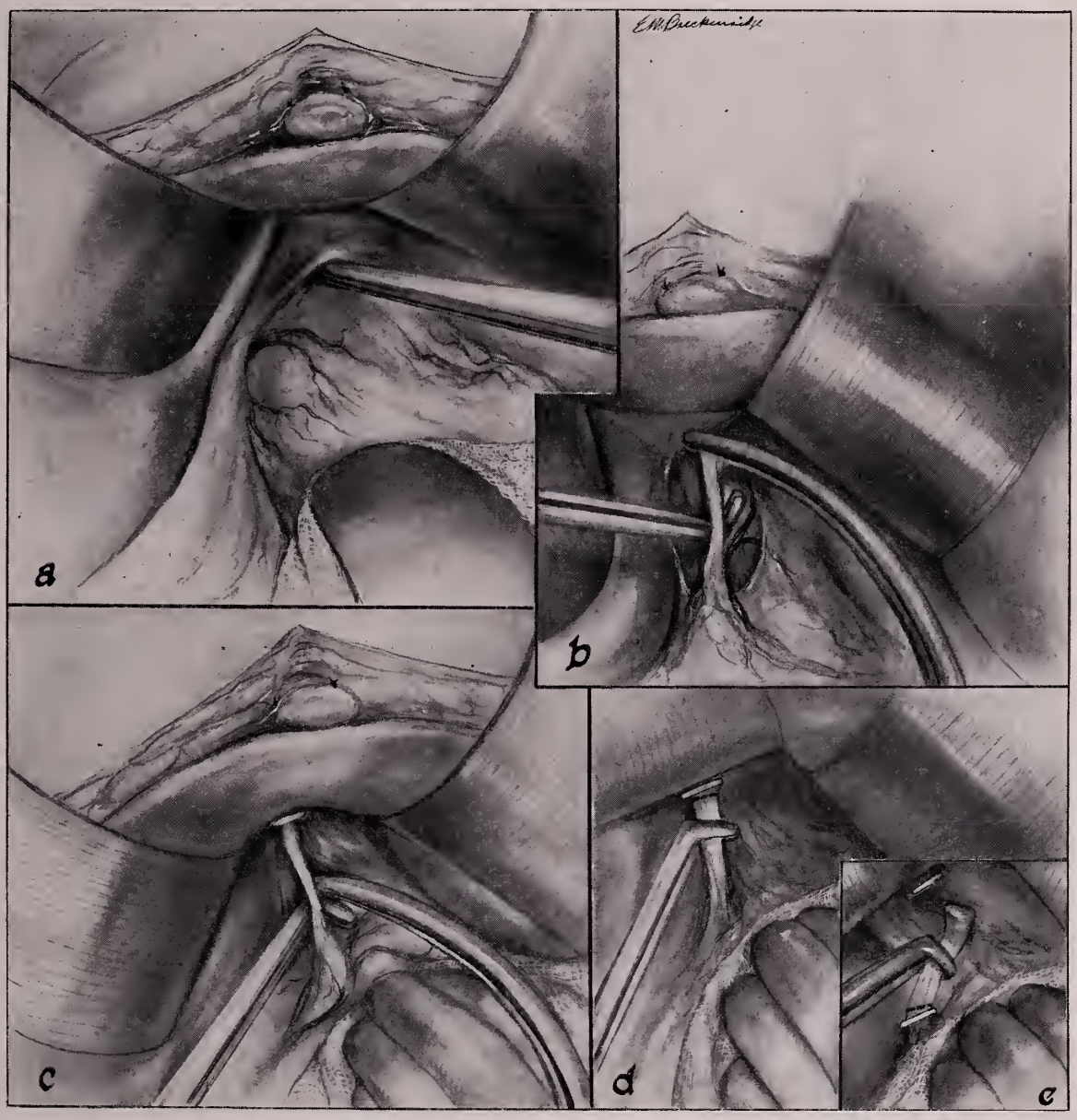

Fig. 3. a. The proper point to incise the peritoneum is just at the apex of the hiatus, or crural junction.
b. The anterior, or left vagus, is freed.
c. A silver clip is placed high up on the nerve (supradiaphragmatic).
d. The nerve is caught with a right angle clamp and incised just below the clip.
e. A distal clip is applied. Note line of section.

readily identified as a hard stringlike structure on the esophagus. It is dissected out, and a Lahey right-angle clamp placed across it about 1 cm. from its junction with the stomach (fig. 3b, c, d). A silver neuroclip is placed just distal to the clamp (fig. 3e), and the nerve is cut between the forceps and the clip. It is now lifted up, and dissected up to a supradiaphragmatic level; another clip is applied as high up as possible and the nerve cut distal to this second clip. Very little bleeding is encountered thus far, as a rule. A search is made for any additional fibers, and if none is found, location of the right, or posterior, vagus nerve is started. This usually is a much more tricky item than the left vagus.

This nerve lies somewhat to the right of the esophagus, and behind it. There is a distinct and appreciable amount of areolar tissue filling the space between it and the posterior esophageal wall. It seems to recede somewhat when the index fingertip searches for it, and I have found it much easier to see than to feel, for purposes of primary identification. The lateral border of the esophagus is carefully cleared as well as possible, with due respect to the arterial supply of the area. Then I place the end of a very long suction tube (fig. 5), which has two angle bends

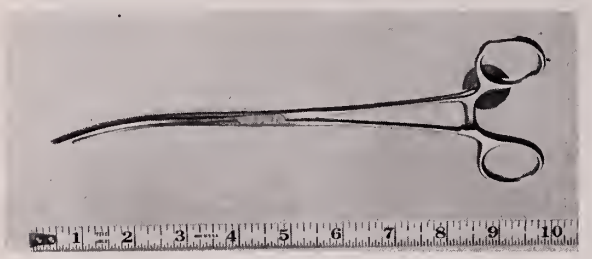

Fig. 4. Peanut sponge holder. Note length.

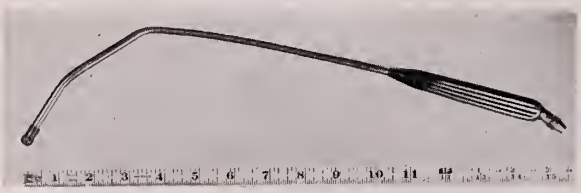

Fig. 5. Long suction tip with two angle bends instead of single curve.

in it, against the right side of the esophagus and kink it sharply to the left. A careful search of the U-shaped area, with good spotlighting, usually will show the heavy white streak shining through the areolar tissue above it. This is the nerve (fig. 6). It is caught up with a long nerve hook (fig. 7), and pulled up from its bed. A right-angled Lahey clamp is placed as before on the distal portion; a clip is placed just below this (sometimes one has to use two clips, as the nerve is rather large); and the nerve is cut between. It is dissected free upward as far as possible, and clipped and cut as previously described for the left vagus. A search is then made for any additional fibers. The peritoneum is not closed, but sulfa powder is sprinkled into the dissected area. Usu-

Fig. 6. The esophagus is kinked sharply to the left by the suction tip; the posterior nerve is underneath. Note clips on the ends of the anterior nerve.

Fig. 7. Long nerve hook-dissector combination. The curve of the hook helps to keep the nerve from slipping off once it has been pulled up.

ally a piece of Gelfoam is applied; then a long, dry, small sponge is strung out with one end left near the operative area and the other brought out the upper end of the abdominal incision. Any gross hemorrhage will show as the rest of the operation progresses.

The gastroenterostomy is done next. The important thing here is not so much *how* it is done, but *where* it is placed. The stoma should be placed at the most dependent part of the stomach, and this varies considerably with different patients. It is well to examine a roentgenogram of each patient taken in the standing position after a swallow of barium. This will be of great help. The point of choice usually is some 3 to 5 inches from the pylorus and in the middle of the greater curvature of the stomach itself. After a site on the greater curvature is chosen, this entire area is meticulously and carefully cleared of all blood vessels, each being ligated separately twice and cut between the ligatures (fig. 8). The stump on the gastric side should be as short as possible, and very fine ligature material should be used,

so that no interference will be created for the suturing of the anastomosis later. Along the greater curvature at this point the gastrocolic omentum joins the stomach by a double row of blood vessels, and these rows are from ½ to ¾ inches apart, more often ½

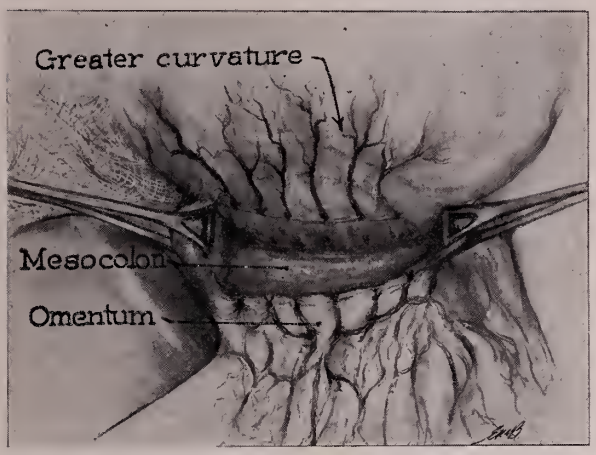

Fig. 8. In clearing of the greater curvature, note the double row of vessel stumps and the anterior layer of the transverse mesacolon.

inch. The gastroenterostomy stomal incision is made precisely in the center of this space. The area is cleared for about 3 inches, and the use of tiny mosquito forceps with a full curve aids materially in handling these small vessels. After these vessels are ligated and cut, the greater curvature is visualized perfectly, and the anterior surface of the transverse mesocolon is exposed (fig. 8).

The colon is picked up; its vessels are visualized; and the operator tries to select an avascular spot close to the center of the cleared greater curvature site and fairly well away from the colon itself (fig. 9). The placement of the opening through the mesocolon is of considerable importance, the main point being that it should not be too close to the colon, but rather well toward the posterior portion of the mesocolon. Unless the colon can swing downward freely and be separated from the anastomotic area by a good margin, it may adhere to and cause obstruction of the anastomosis. This occurred in only 1 of my cases, but I was duly impressed by the importance of this technical detail. Having made the opening, the operator brings the denuded greater curvature through this opening, and the mesocolon is then sutured all around to the stomach wall (fig. 10, top). Now the jejunum is picked up at the ligament of Treitz and followed along to the proper spot for anastomosis. One should not try to place the anastomosis too close to the ligament of Treitz, nor should it be an undue distance therefrom. The proximal loop should not be under tension, nor should it be a long, floppy

Fig. 9. Site of opening in the transverse mesacalan. Nate the distance from the transverse calan.

loop. It should lie naturally in a smooth flowing curve, and the anastomosis should be isoperistaltic, not chosen especially for that reason, but because it does not twist the segment in any way.

The posterior row is placed, using a continuous 0 chromic gastrointestinal suture, and locking it at the far end. The surgeon should be careful to place the suture line rather close to and parallel to the posterior row of ligated vessel stumps on the greater curvature of the stomach (fig. 10). This produces somewhat of a curved suture line. Now an incision is made

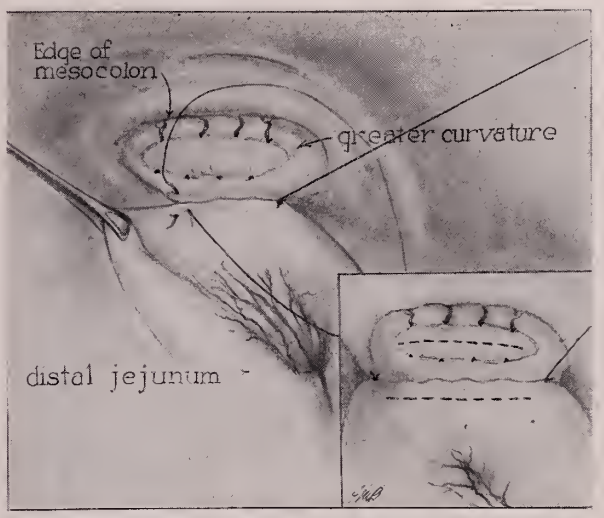

Fig. 10. An area of cleaned greater curvature has been pulled through the opening in the mesacolan, and mesacolan edges are sutured to the pauch of the stamach. The first posteriar (auter) suture is placed. The insert shaws lines of incision in the stamach and jejunum; these incisions go down ta submucosa.

down the greater curvature just between the two rows of ligated vessel stumps of a chosen length, usually about 1½ inches, down to, but not through, the submucosa, and a corresponding one in the jejunum (fig. 10, insert). Several vessels in either structure now can be ligated, preventing bleeding later on. Now a lockstitch type suture, using 000 chromic suture, is placed (fig. 11, top). This is used only

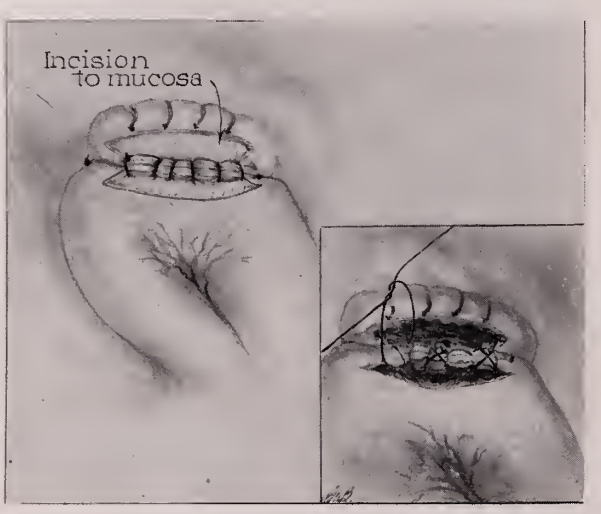

Fig. 11. Incisions ore completed to the mucosa, ond the second row of lockstitched 000 chromic suture has been ploced. This suture is used only on the posterior row. The insert shows both lumens open ond o row of interrupted figure-of-eight fine silk sutures in ploce. This completes the posterior row.

on the posterior line and is to minimize bleeding. After placement of this suture, the gastric and jejunal incisions are opened through their respective submucosae, and the final suture for the posterior row is placed (fig. 11, insert). This is an interrupted figure-of-eight type, using fine silk. Now the posterior row is complete, and the tube is fished out of the stomach and passed down into the distal jejunum. This is the least sterile part of the operation. The anterior row is begun, and the first row is interrupted Connell type, using 000 silk, followed by the continuance of the running stitch that formed the first suture of the posterior row (fig. 12). At each end about two reenforcing sutures are placed, uniting the jejunal wall with the gastric wall. If properly placed, the ones at the distal end tend to angulate the distal jejunum somewhat downward.

The area is sprinkled with sulfa powder, and great care is taken to place the colon back within the abdomen so that it lies as far downward beyond the site of anastomosis as possible. This is important. An inspection is now made of the vagotomy site, and if no undue hemorrhage is noted, the abdomen is closed, using 0 chromic suture on the peritoneum, and stainless steel wire, twisted, 000, on the linea alba.

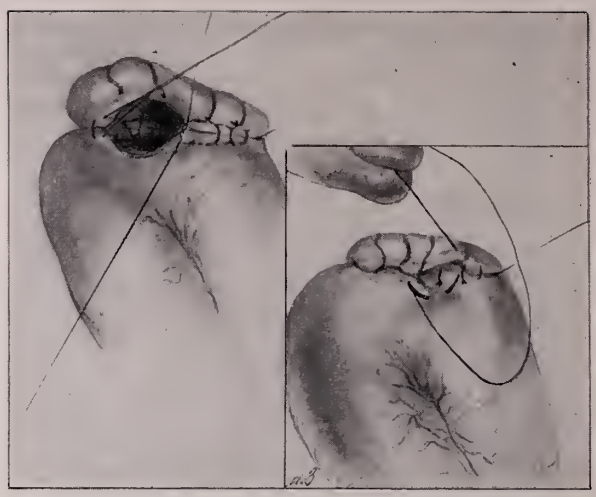

Fig. 12. Interrupted Connell fine silk suture completes the first onterior row. The Einhorn tube hos been pushed down into the distal jejunum. The insert shows the closure, o continuotion of the original continuous suture.

The literature says little about the amount of hemorrhage one may have while doing the vagotomy, but my experience has been that it can be alarming and disastrous. Its danger should never be minimized.

POSTOPERATIVE CARE

A Wangensteen suction is applied to the S side of the tube, keeping the stomach empty and preventing air from being swallowed. A continuous drip device is attached to the D or J side, and administration of 5 per cent glucose water is started in the recovery room; 2,000 cc. of this are given, followed by 1,000 cc. of Sustagen solution. The time for these three to run is figured for 24 hours. This is repeated each 24 hours. In addition, the patient is given water and small amounts of clear liquids orally. This helps to keep the stomach clean and promotes irrigation of the anastomosis. The usual electrolyte check is carried out, but it is rarely necessary to give any intravenous injections. Both sides of the tube must be irrigated at intervals to insure patency.

For distention, Urecholine, 5 mg. subcutaneously, is used in marked cases. Surgical Pituitrin suffices ordinarily. Rectal slushes are given twice daily, and each morning hot, wet compresses are applied to the entire abdomen for one hour.

Usually the tube can be removed in three days, and feedings of strained baby food are started. The patient is put on a soft diet about the sixth postoperative day, and after 12 to 14 days there are few restrictions.

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Congenital Aganglionic Megacolon

(Hirschsprung's Disease)

H. GRAY CARTER, M. D.

Dallas, Texas

HIRSCHSPRUNG[5] in 1888 first focused attention upon the clinical syndrome of severe constipation in infants exhibiting dilatation and hypertrophy of the colon without evidence of mechanical obstruction. Since that time, the disease has borne his name and undoubtedly will continue to do so. More recently the descriptive terms of congenital megacolon, aganglionic megacolon, and achalasia of the colon have come into popular use, and all are acceptable terms. I prefer the term congenital aganglionic megacolon, as it adequately describes the condition while excluding other types of megacolon.

Dr. H. Gray Carter presented this paper before the Texas Society of Gastroenterologists and Proctologists April 28, 1957, in Dallas.

Diagnosis and treatment of congenital aganglionic megacolon are discussed. Indications for and methods of nonsurgical treatment are given, as is a description of surgical treatment by excision of the aganglionic segment with endo-anal anastomosis.

By definition, congenital aganglionic megacolon is a disease produced by the congenital absence of the myenteric plexus from all or a portion of the large bowel. The aganglionic segment of bowel responds to normal peristalic stimulation by mass contraction which prevents the peristaltic movement of feces through the aganglionic segment, thereby producing an unrelenting partial obstruction of the colon. The actual megacolon is secondary to the partial obstruction and develops in the uninvolved segment of the colon as a normal compensatory response to the obstruction. The magnitude of the symptoms produced is roughly proportional to the length of the aganglionic segment.

The disease may be divided conveniently into three types:[6]

1. The short segment type comprises 90 per cent of the cases. The aganglionosis begins at the anus and extends proximally for a variable distance but not further than the distal sigmoid. Many children with a short segment involved survive the neonatal period and may live into adulthood without definitive surgical treatment.

2. The long segment type comprises less than 10 per cent of the cases. The aganglionosis begins at the anus and extends to the midsigmoid colon or higher. It may involve the entire colon and occasionally part of the small bowel. This type produces very severe symptoms. Immediate surgical decompression is necessary if the infant is to survive.

3. The central segment type is rare, but there are a few cases reported in which there are one or more central areas of aganglionosis with normal bowel both proximal and distal to the involved segment. Clinically they are similar to the long segment type, but the problems of diagnosis are compounded. Most of these infants do not survive unless diagnosis is made and surgical treatment is given in the neonatal period.

Congenital aganglionic megacolon must be differentiated from megacolon that is frequently seen in children and adults secondary to habit constipation, and megacolon secondary to organic narrowing of the colon or rectum.

DIAGNOSIS

The essential points for the diagnosis of congenital aganglionic megacolon are:

1. The onset of symptoms in the neonatal period. The condition is present at birth and the symptoms begin at birth or certainly within the first few days thereafter. The symptoms may be only severe constipation in the mildest cases, but more typically there are obstructive symptoms with vomiting and abdominal distention. The history of bowel function in the neonatal period is extremely useful in differentiating congenital aganglionic megacolon from secondary megacolon. If there is a history of a period of normal bowel function following birth, congenital aganglionic megacolon can be ruled out, and a search for other causes of the symptoms must be undertaken.

2. The demonstration by barium enema roentgenograph of an achalasic area of the colon. Barium enema examination of an infant is a trying procedure; however, it is with this examination that a definitive diagnosis is most likely to be made. Typically, the lateral

and oblique views are the most likely to show the lesion, which will appear as a constant area of narrowing and spasm just distal to the dilated and enlarged bowel. The rectum may appear normal or spastic. In the newborn, before dilatation and hypertrophy of the colon have taken place, it is often difficult to demonstrate the area of narrowing and spasm even with technically satisfactory roentgenographs.

3. Prolonged retention of barium in the colon of infants. Ehrenpreis[3] pointed out that in the barium enema examination of normal infant colons, there is a very forceful and immediate evacuation of the barium from the colon; however, in infants having congenital aganglionic megacolon, the barium is retained over a long period of time, often 24 hours or more. Although this may occur in obstruction of the colon from other causes, the absence of retention of barium in the colon of the patient almost completely rules out consideration of the diagnosis of congenital aganglionic megacolon. This point is especially helpful in the newborn infant before dilatation has taken place and in those infants with aganglionosis of the entire colon.

4. Palpation of an area of rectosigmoid spasm. Hiatt[4] and Klein[7] both have reported that in a number of cases of congenital aganglionic megacolon, an area of spasm due to the aganglionic segment is palpable in the upper rectum or lower sigmoid. Although this finding is not always demonstrable, when present it is often of considerable help in establishing the diagnosis.

5. The demonstration of the absence of myenteric plexus ganglions by biopsy. In cases where some doubt exists as to the diagnosis, biopsy of the internal sphincter muscle will prove helpful.

Swenson[18] and Bill[1] have published independently the details of the technique of obtaining the biopsy specimen. Except in the rare case of the central type of aganglionosis, it can be relied upon to demonstrate conclusively the presence or absence of myenteric plexus ganglion cells. Biopsy is especially helpful in cases in which the rectum is involved in the process of dilatation and hypertrophy, and there is a question as to whether the symptoms are due to habit constipation or a very short segment of aganglionosis. The patient who has had a colostomy done for aganglionic megacolon in the neonatal period usually will not show the roentgen-ray criteria for diagnosis of congenital aganglionic megacolon. There are several reports in the literature of resection and anastomosis of the rectum for aganglionic megacolon after a colostomy has been done, only to find that the colon and rectum contain normal myenteric plexus[1]. This error can be obviated by the use of the internal sphincter muscle biopsy.

TREATMENT

The treatment of Hirschsprung's disease is essentially surgical; however, many cases not of a severe nature lend themselves well to nonsurgical treatment for a time. Nonsurgical treatment consists of repeated enemas to remove the fecal matter, administration of dioctyl sodium sulfasuccinate to help prevent hardening and impaction of feces, and the judicious use of laxatives and parasympathomimetic drugs such as Prostigmin and Mecholyl Hydrobromide. With the diligent application of nonsurgical means, many patients will progress nicely and achieve normal growth and development. If the child can be managed by such treatment, it is usually better to delay surgery until sometime between the time the child reaches the age of 1 year and he begins school. Surgical treatment should be completed before the beginning of school, for even though the child's general health and growth are not affected by the disease, it usually will require him to be out of school frequently to secure evacuation of his bowels and will interfere markedly with his social and scholastic progress.

Three major complications must be guarded against constantly during this period of nonsurgical treatment. The first is water intoxication, which may occur suddenly during the administration of tap water enemas. Levinson[9] and others have made a rather detailed study of this situation and have recommended that tap water never be used for enemas. The much enlarged absorptive surface of the colon, coupled with the increased hydrostatic pressure when the hypertrophied colon contracts, may cause a phenomenal amount of water to be absorbed. This produces a marked fluid and electrolyte imbalance and occasionally actual shock. If shock does occur, the symptoms usually can be controlled rather rapidly by the intravenous infusion of hypertonic saline solution. The use of normal saline solutions or a 5 per cent agar suspension for the enema fluid will prevent this. Levinson[9] also has cautioned against the use of parasympathomimetic drugs during the administration of enemas. The stronger contractions of the colon increases the likelihood of water intoxication occurring.

Another not uncommon complication is ulceration of the colon caused by trauma from the mass of impacted feces or enemas. The use of highly irritative substances such as strong soap solutions and hydrogen peroxide should be avoided as they can produce chemical ulceration. If such ulceration does occur coupled with the marked increases in the intraluminal pressure, the likelihood of rupture of the colon is great. When rupture of the colon occurs, it is usually fatal. Meticulous attention to evacuation of the bowels is required to prevent the formation of large fecal impactions.

The third complication that is mentioned frequently is the occurrence of gastroenteritis. For some reason not well understood, the usual attacks of gastroenteritis with diarrhea which are so common to childhood are poorly tolerated in children with congenital aganglionic megacolon both preoperatively and postoperatively. The gastroenteritis is frequently fulminating, causing rapid dehydration and death if it is not brought under control quickly. The occurrence of gastroenteritis in these children warrants immediate hospitalization and vigorous treatment to bring the infection under control.

Colostomy performed in the normal segment of bowel will relieve the symptoms of congenital aganglionic megacolon. It should be the initial treatment in those infants who are premature, who show evidence of complete obstruction of the colon, or who are otherwise poor surgical risks. Occasionally it should be used in the older patients whose bowels are so dilated and thickened that it would make the performance of an anastomosis precarious. With the advent of the colostomy, the bowel over a period of time will return to almost normal size, and then definitive surgical treatment can be carried out without difficulty.

Many recommend a colostomy as a temporary procedure for all newborns who do not respond readily to nonsurgical treatment, and prefer to delay to the age of 1 year or more the definitive surgical treatment. However, there are increasing reports in the literature stating a preference to proceed with the resection of the involved segment of the endo-anal anastomosis in those newborn infants who are otherwise acceptable surgical risks. If a colostomy is indicated, it is much preferred that the colostomy be done in the sigmoid colon just proximal to the area of aganglionosis. This has the advantages that the fecal content will be more solid, the colostomy more easily can be cared for, and at the time when definitive surgical treatment is undertaken, the area of the colostomy can be resected along with the remainder of the bowel, thus preventing the necessity of a second procedure to close the colostomy. At the time such a colostomy is done, a frozen section examination of the bowel wall should be made to prevent the colostomy being placed in the aganglionic area of the bowel.

Most of us, with one or two notable exceptions[11] by this time have accepted the aganglionic segment of bowel as the cause of Hirschsprung's disease and on that basis are performing some modification of the abdominal resection and endo-anal anastomosis of the colon as originally described by Swenson. This type of operation has been eminently successful in the hands of nearly all authors reporting in the literature.

There are several excellent descriptions of the operative technique and its modification included in the bibliography.[8, 11, 14] To avoid repetition, I will call attention to only a few features that I consider especially important to this surgical technique:

1. The proximal point of division of the colon must be made in normally innervated colon. This point is chosen because it is well proximal to the junction of the dilated bowel with the normal appearing rectum; there is demonstration of normal peristalsis; and the bowel is of such caliber and thickness that it can be anastomosed successfully to the distal rectum. When this point is determined, the presence of normal ganglions always must be confirmed by frozen section microscopic study. Clinical judgment is usually accurate, but occasionally it is misleading and it is an unforgettable error to perform the anastomosis in an aganglionic segment of bowel. No hesitancy should be had in dividing the inferior mesenteric and the middle colic arteries, if necessary, to obtain adequate mobility of the bowel.

2. The distal point of dissection must be carried completely to the pelvic floor where the levator ani muscle joins the rectum. This is always a few centimeters farther than the operator would like.

3. In contrast to the usual surgery for malignant lesions in this area, the dissection of the rectum must be kept very close to the bowel. This is accomplished by using sharp dissection almost entirely, even at the possible expense of inadvertently entering the bowel. If this principle is strictly adhered to, injury to the pelvic parasympathetic nerves will be a remote possibility, and impotence in the male can be avoided.

The technique of the endo-anal anastomosis is unique and warrants a little more detailed discussion. With the completion of the abdominal dissection some operators prefer to excise the bowel from the abdomen, then evert the rectum and pull the cut end of the bowel through the everted rectum. Others, including myself, prefer to leave the bowel intact and, after preparation of the perineal field, insert sponge forceps through the anus, grasp the bowel, and by gentle traction prolapse the whole mobilized segment through the anus.

A circumferential incision of approximately one-fourth of the circumference of the prolapsed rectum is then made as close to the anus as is convenient, exposing the serosa of the proximal colon. The area previously determined by biopsy should have been marked by a distinctive suture; this area is located through the rectal incision to be sure it is distal to the point to be divided. The anastomosis is then begun in reverse to the usual manner, suturing the external layers of the rectum to the serosa of the colon. As the suturing progresses the incision is successively extended until it completely circumcises the rectum. The protruding proximal bowel is then divided at the suture line, and the external layer of the anastomosis, suturing mucosa to mucosa, is completed.

A slight push of the finger and the rectum returns to its normal position.

The endo-anal anastomosis performed as described is technically much easier than low anterior anastomosis performed from the abdomen, and the anastomosis can be made much closer to the anus. The anus and a short cuff of rectum are preserved so that the normal defecatory reflex is preserved. It is not necessary to disturb the internal sphincter or the levator ani muscle so there should be no difficulty with continence following the operation; in fact it is gratifying when operating on the older children to find that they usually are having normal bowel movements within 24 to 48 hours after surgery. The patients tolerate the operation well, and their recovery usually is surprisingly rapid.

SUMMARY

In summary, I would like to reemphasize what I consider to be the cardinal points in the diagnosis and treatment of congenital aganglionic megacolon.

1. The prolonged retention of barium in the colon following barium enema roentgen-ray examination is the most constant objective finding. This may be present in other conditions producing similar symptoms, but its absence casts grave doubt and indeed almost eliminates congenital aganglionic megacolon from consideration.

2. The onset of symptoms in the neonatal period is the constant subjective finding, and similarly its absence makes it unlikely that aganglionosis is the cause of symptoms.

3. A constant area of spasm of the rectum or rectosigmoid area seen on the barium enema roentgenograph is diagnostic when demonstrable, but may be very difficult to demonstrate especially in the newborn period.

4. When the diagnosis is suspected but cannot be completely substantiated by usual diagnostic studies, a biopsy of the internal sphincter muscle at the dentate line of the anus will resolve any doubt by proving the presence or absence of normal myenteric plexus ganglions.

5. Nonsurgical treatment, except in the mildest forms of the disease, is exceedingly tedious, time consuming, and at times dangerous. Its use should be limited to preparation of the patient for surgery.

6. During the period of nonsurgical treatment, great caution must be exercised to prevent water intoxication and ulceration of the colon. During this period gastroenteritis is a major complication warranting prompt and vigorous therapy.

7. Surgical excision of the aganglionic segment with endo-anal anastomosis as described is a safe and curative procedure. The possibility of impotence in the male following surgery has been a source of concern, but recent reports indicate that it is a rare occurrence after properly performed surgery.

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Hospitals Said More Productive

General hospitals in America today are more productive than they were two decades ago, reports the Health Information Foundation.

Between 1932 and 1952, the annual number of patients admitted to the typical nonprofit community hospital more than doubled, and part of the increase was due to the addition of 30 beds to the 194 available in 1932. More important, according to the foundation, were a more extensive use of existing beds—93 per cent occupancy in 1952 as compared with 70 per cent in 1932. The patient's length of stay was reduced from 12.8 to 9.8 days. The annual death rate at the hospital has declined by one-third.

Health Conditions, Population Growth

The new yearbook of the World Health Organization contains more than 580 pages of figures showing the population of each country, its growth, and most prevalent illnesses. A new section of the book deals with health personnel, the number and distribution of hospitals, and vaccinations of various types carried out in each country. This book is available from WHO's regional office, 1501 New Hampshire Ave., N.W., Washington 6, D. C., at $10 per copy.

Roentgen Characteristics Of the Malignant Lymphomas And Leukemias In Childhood

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LYMPHOMAS and leukemias are categorized as diseases of the reticuloendothelial system, the interrelationship of which is complex and poorly understood. It is not uncommon for the clinical and histologic characteristics of the various lymphomas to lack sharp lines of division, and multiple biopsies from the same patient may demonstrate typical histologic criteria of different forms of the disease. Herbut, Miller, and Erf[14] have reported 6 cases in which lymph node biopsy from three separate areas of the body of each patient revealed typical histologic pictures of lymphosarcoma, Hodgkin's disease, and reticulum cell sarcoma. The picture of lymphatic leukemia may be associated with any type of lymphosarcoma, particularly in its later stages. It is therefore not surprising that the gross morphology of these diseases is identical radiographically.

Dr. Robert L. Egan (assistant radiologist) and his co-author (associate radiologist) are associated with the University of Texas M. D. Anderson Hospital and Tumor Institute; they presented this paper in Dallas April 29, 1957, for the Section on Radiology of the Texas Medical Association.

In addition to the usual changes observed in the mediastinum, liver, and spleen of children with leukemia or one of the lymphomas, invasion of the bone is encountered. The recent increase in survival following the administration of various chemotherapeutic agents has resulted in some additional roentgen signs which are generally not related to these diseases. The characteristic systemic findings are given, as well as examples of changes now found in the brain, kidneys, and skeletal system.

The role of the radiologist in the diagnosis of these conditions is not a satisfying one. Since the individual entities are not distinguishable radiographically, he must limit himself to generic terms. Further, with the exception of an occasional case of lymphoma of unicentric origin in the mediastinum, it is his task to arrive at such a conclusion by findings which are invariably signs of advanced disease. Usually the radiologic examination augments rather than supercedes clinical methods. Readily observable and measurable findings such as enlargement of the liver and spleen, lymphadenopathy, alterations in the peripheral blood and bone marrow, and fever serve as adequate clinical indications of the course of the disease. However, the propensity of the disease to manifest itself in parts of the body not amenable to inspection and palpation amply justifies the need for familiarity on the part of the radiologist. Not infrequently information gleaned by radiologic methods points the way to a diagnosis that is not immediately obvious clinically.

Mediastinal adenopathy is probably the most frequent roentgen finding, yet many diseases may be responsible and only in the late stages is the inferential diagnosis obvious. Similar perplexities are encountered with liver and spleen enlargement, retroperitoneal masses, and isolated tumefactions. However, the changes seen in bone and kidney are reasonably characteristic and, with one exception, should lead to a proper diagnosis when present.

Recent publications have called attention to cerebral and meningeal leukemic infiltration as a cause of increased intracranial pressure and an apparent biologic relationship between mongolism and leukemia. Although they are not diagnostically specific, these findings are important from the differential and etiologic standpoint and deserve reemphasis.

OSSEOUS LESIONS

The bone changes in the malignant lymphomas and leukemias are neither uniform nor constant. Variable response to the proliferating reticulum cells is seen not only in the same patient, but in the same bone. The most obvious alterations occur in the metaphyseal regions as in most diseases involving bone during growth; although the tubular bones are more frequently affected, lesions may occur in any portion of the skeleton. This tendency for diffuse involvement correlates with the intense hematopoietic function of the marrow during early life. Replacement of functioning red marrow through malignant hyperplasia of the reticulum cells results in extramedullary hematopoiesis and expansion of the marrow cavity. Relatively rapid alteration of adjacent bone then en-

sues in contrast to the adult wherein large masses of fatty marrow may be replaced before osseous disease becomes obvious.

Silverman[12] has written extensively on the bone changes and has classified them as (1) osteolytic, (2) subperiosteal new bone formation, (3) transverse bands of diminished density, and (4) osteosclerosis, in that relative order of frequency. This corresponds to the incidence of the various types of response in our group of cases. Pure types are seldom encountered; the usual pattern is one of multiple forms, frequently in the same bone.

Osteolytic response is seen in approximately 50 per cent of the skeletal lesions but is not always obvious. This type of reaction results from resorption of the spongiosa and adjacent corticalis and the lesions may vary from relatively large areas of destruction to a diffuse "flea-bitten" appearance of the bone (figs. 1, 2, 3, and 4). Progression to extreme degrees of

Fig. 1. "Flea-bitten" osteolytic changes in distal right femur as compared with relatively normal left femur in a 5 year old white girl with lymphosarcoma.

osteolysis may occur and pathologic fractures result.

Subperiosteal new bone formation may be seen rather frequently, more often in the larger tubular bones, less often in the ribs or phalanges, and rarely in flat bones. Extravasation from the marrow cavity or foci of the leukemic cells beneath the periosteum separates and elevates it; the periosteal osteoblasts then lay down new bone (fig. 4). Less frequently the vertical "radiating" type of spicules are encountered depending upon the mechanism of deposition of the subperiosteal new bone (fig. 5).

The transverse lines encountered in the metaphyses when less advanced are indistinguishable from those

Fig. 2. a. Advanced osteolytic changes in the metaphysis of a 2 year old white mongoloid girl with acute leukemia.

b. Transverse lines of diminished density in the metaphyses in a 2½ year old white girl with acute leukemia. These changes are more advanced than those seen in most nutritional diseases.

c. The more frequent but less distinct osteolytic changes about the knee and ankle of a 6 year old white girl with acute leukemia, the corticalis and spongiosa reflecting changes.

seen in infection, nutritional disturbances, or any systemic disease interfering with growth for a period of time. However, they frequently represent the first change in leukemic disturbance in the skeleton, and earliest detection will be at sites of most rapid growth as at the knees or distal ulna and radius (figs. 2b and 6a). These changes are reversible in their less severe forms but may progress to areas of frank osteolysis.

Osteosclerosis may be seen with any or all of the other lesions. Histologically the osteoblasts are stimulated to bone production by the presence of leukemic cells with resultant heavier trabeculae, but without actual thickening of the cortex.[12] The process

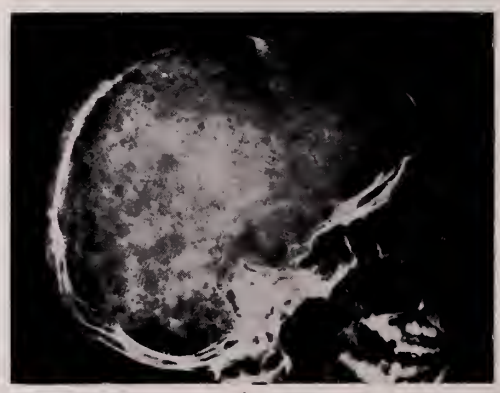

Fig. 3. Osteolytic changes in the calvarium in an 8 year old white boy with lymphosarcoma. Both tables are involved, the outer to a greater extent than the inner.

may involve only a portion of one bone or the entire skeleton (figs. 2c and 6).

The importance of the skeletal examination in children with arthralgia, fever, or bone pain of undetermined origin cannot be overemphasized. Demonstration of skeletal lesions seen in leukemia will exclude most of the more commonly confused diseases such as secondary anemia, rheumatic fever, Still's disease, subacute bacterial endocarditis, sickle cell anemia, sepsis, and even poliomyelitis.

Fig. 4. Marked subperiosteal new bone in a 3 year old white boy with acute leukemia. Osteolytic changes are present in the metaphyses, a usual accompaniment.

An immediate practical application is the identification of skeletal areas accessible to needle biopsy, a procedure often necessary for diagnosis. Because of the irregular development of the sternal ossification centers, marrow aspiration is technically difficult at times, and instances of normal sternal marrow in the presence of positive biopsy findings elsewhere have been reported.

The skeletal changes in the metastatic neuroblastoma are indistinguishable from these conditions. In the past, inferential points have been used in differentiation; for example, in the presence of typical skeletal changes in a child with a mass at the upper pole of one kidney and increased intracranial pressure, the diagnosis of neuroblastoma was favored. The possible error inherent in this assumption will become apparent with the next two subjects examined.

RENAL INVOLVEMENT

Leukemic or lymphomatous infiltrations of the kidneys are commonly encountered in the pathology laboratory and may be nodular or diffuse in character. Wentzell and Berkheiser[15] reported an incidence of 53 per cent in a group of 32 patients with all types of lymphoma. Barney[2] recorded renal involvement in 18 of 23 cases of lymphoblastoma of the urinary tract, and Baldridge and Awe[1] found microscopic evidence of kidney involvement in 20 of 39 cases of lymphoma, the highest incidence occurring in the lymphocytic type with attendant leukemia. Whereas bulky single or multiple lymphomatous renal masses may occur in the adult, the diffuse type of infiltration is considerably more common in childhood and is invariably associated with acute leukemia or the leukemoid phase of a lymphoma of the lymphocytic series. It is doubtful that isolated lymphoma of the kidney as such occurs.

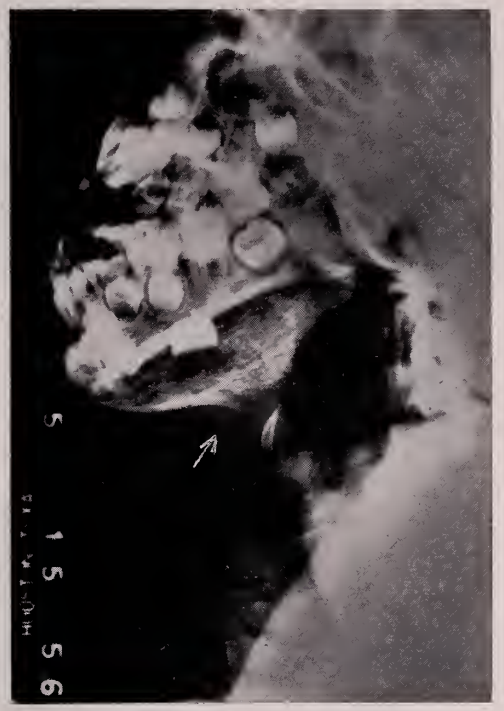

Fig. 5. "Radiating" spicules of subperiosteal new bone in the mandible of a 6 year old Negro girl with clinically proven malignant lymphoma. Histologic study of tissue from this lesion revealed infiltration of similar cells. Roentgen examination demonstrated no other skeletal lesions.

Histologically diffuse involvement is characterized by marked infiltration of the interstitial tissues by cellular masses. This is most apparent in the cortex and least evident in the peripelvic region. The glomeruli and tubules show varying degrees of separation, compression, and degeneration. Focal hemorrhage is common. Grossly the kidneys are enlarged and firm, and the individual structures lack sharp definition on cut section.

Although renal infiltration may become apparent at any time during the course of the disease, the

Fig. 6. a. Diffuse osteosclerosis in lower extremity in a 2 year old white girl with acute leukemia. Transverse lines are present in the distal femoral metaphysis.

b. Diffuse osteoblastic response in pelvis and lumbar spine in an 8 year old white boy with Hodgkin's disease.

autopsy incidence is not reflected by radiologic methods of examination. Smaller nodules do not significantly alter the gross architecture of the kidney, and death frequently occurs before the infiltration is detectable radiographically. However, the prolongation of life by chemotherapeutic means is resulting in a higher incidence of recognizable involvement.

Radiologically, therefore, the renal shadows are enlarged but maintain a normal outline in the majority of cases (fig. 7b). Intravenous pyelography shows separation and elongation of the calyces without evidence of individual pressure defects. Usually the appearance time and concentration of the urographic medium are excellent until the later stages of the disease when marked impairment or cessation of function becomes evident. This renal pattern may or may not show response to the various chemotherapeutic agents; progressive increase in renal size frequently can be documented (figs. 7 and 8). Invariably reduction in the size of the kidney can be obtained by irradiation, but transient interference with function may result. In 1 case we have seen heavy calcification of the parenchyma following such therapy.

Demonstration of renal lesions is not a prerequisite in the diagnosis of lymphoma or leukemia. However, several cases have been reported in which infants were referred for evaluation of abdominal masses.[6, 8, 9] In such instances the roentgen characteristics were fairly specific and the diagnosis indicated. Polycystic disease is the entity most apt to be confused. Differentiation may be achieved by noting the lack of multiple pressure defects upon the collecting system and relatively excellent function of the leukemic kidney

Fig. 7. a. Initial normal urogram on October 6, 1955, of a 5 year old white boy with acute leukemia. There was mediastinal adenopathy and a few palpable lymph nodes.

b. Urogram on August 1, 1956, of the same patient following chemotherapy. There is marked renal enlargement, but function is maintained. Subsequently, following a 350 r tumor dose, the kidneys decreased in size and function improved. Death 10 months later was attributed to acute right heart failure and impaired renal function.

as compared to the polycystic.[8] In the absence of renal function, perirenal air insufflation usually reveals a smooth outline in leukemia in contrast to the irregular surface of the polycystic kidney.

Frequently retroperitoneal node enlargement is present in conjunction with or independent of detectable renal disease. Death from obstruction of the urinary tract by enlarged nodes and superimposed infection is not uncommon. Retroperitoneal air is of little value in these instances, the position of the kidneys and ureters as demonstrated by pyelography being a more reliable index of retroperitoneal disease (fig. 8).

Fig. 8. a. Displacement of the right ureter by leukemic infiltration of retroperitoneal nodes in a 2½ year old white girl with acute leukemia.

b. Malignant lymphoma in an 8 year old white boy with periaortic nodes producing lateral displacement of the kidney and partial obstruction of the proximal ureters (same patient as figure 3).

INTRACRANIAL INVOLVEMENT

As in renal infiltration, autopsy studies tend to indicate intracranial leukemic infiltration is not uncommon. Schwab and Weiss[11] in 1935 reported on a collected series of 146 cases of central nervous system involvement in leukemia, 89 per cent of which had had an autopsy. Meningeal involvement was found in 17.8 per cent, cerebral invasion in 15.7 per cent, cranial nerve nuclei invasion in 15.7 per cent, and cerebral hemorrhage in 32.2 per cent. Thirty per cent of the cases showed involvement of more than one part of the nervous system. The changes are independent of the type of leukemia although there is evidence to indicate that intracranial infiltration is more frequent in the chronic form of the disease. The pathogenesis of the syndrome is not clearly understood. As in other parts of the body, there is some disagreement as to whether the leukemic cells represent a true blood-borne invasive process or proliferation of local reticulum cells.

Approximately 25 per cent of leukemic children followed at the M. D. Anderson Hospital during the past 18 months have developed symptoms related to the central nervous system. This apparently results from the prolongation of life by chemotherapy. Infiltration probably does occur in the untreated cases, but clinical manifestations are seldom encountered. Characteristically, the syndrome appears after the patient has been on chemotherapy for some months and may be in remission or relapse. The spinal fluid pressure is elevated, occasionally without symptoms, and leukemic cells are identifiable in the spinal fluid.

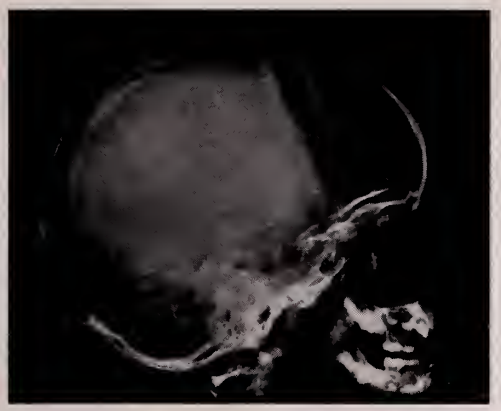

Fig. 9. Skull of a 3 year old white boy with acute leukemia and clinical nervous system syndrome. This is predominantly seen following multiple remissions from chemotherapeutic agents.

Skull films show separation of the suture lines which may be quite marked (fig. 9), frequently without associated disease in the bones of the calvarium.

The finding of cranial suture separation is of interest from the radiologic standpoint since in the past it has been the assumption that increased intracranial pressure, as manifested by an increase in width of the cranial sutures, indicated the presence of neuroblastoma rather than leukemia or lymphoma, the skeletal changes being indistinguishable. This sign was particularly relied upon if a concomitant suprarenal mass could be demonstrated. Obviously, this could be misleading since unilateral renal or adrenal infiltration can mimic a sympathicoblastoma. The failure of chemotherapeutic agents to produce satisfactory remission of intracranial disease is possibly associated with the blood-brain barrier.

SIMULTANEOUS OCCURRENCE OF MONGOLISM AND LEUKEMIA

Krivit and Good[10] recently have reported simultaneous occurrence of mongolism and leukemia in 5 children, 4 of whom were encountered over a period of 1 year. These authors have calculated the probability of both entities occurring in a child of 4 years or less as 1 in 10,000,000, which suggest some biologic relationship between the two diseases in view of their clinical experience.

The defects characteristic of mongolism occur in tissues undergoing rapid differentiation during the sixth to ninth weeks of intrauterine life. Endogenous hematopoiesis also begins during this period. It is possible that the intervention of some unknown factor during this period could be responsible for both diseases. The relationship between the virus of German measles and the incidence of congenital malformations is well known, and many studies have incriminated a filtrable agent as the cause of leukemia in mice and chickens. It is conceivable that a similar cause and effect mechanism may explain the simultaneous occurrence of mongolism and leukemia. The recent observations of Dmochowski[4] offer tentative support of this theory. He has successfully demonstrated by electron microscopy the presence of virus-like particles in the cervical lymph nodes of a 15 year old girl with acute leukemia. While possibly fortuitous, the microscopic picture is similar to that observed in the leukemic organs of mice and chickens.

As in many "rare" conditions, the actual incidence is probably higher than the literature indicates. Although only 10 cases have been reported to date, Farber[5] has observed 6 instances of coincident mongolism and leukemia and Krivit and Good[10] indicated that several other unreported cases are known to them. We have had the opportunity of studying 1 patient, a 2 year old white girl who demonstrated the classical clinical and roentgen stigmas of both diseases (fig. 10). It is probable that philosophic acceptance of intractable morbidity in the mongoloid has accounted at least in part for the paucity of case reports. The radiologist should be alert for the roentgen signs of leukemia in these children if only to provide an opportunity for further investigation of this interesting and perhaps significant relationship.

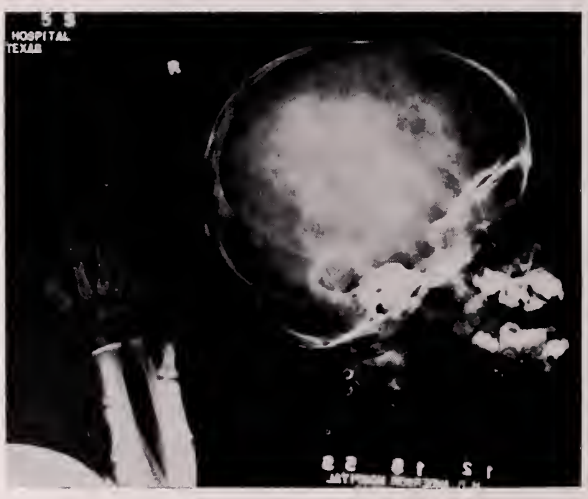

Fig. 10. Roentgenograms showing typical changes in the hand and skull of the mongoloid; early leukemic skeletal changes are present in the phalanges.

SUMMARY

The roentgen changes in the skeleton of children with lymphoma and leukemia are briefly described and are of value in differential diagnosis and selection of the site for marrow aspiration. The skeletal changes are indistinguishable from metastatic neuroblastoma.

Renal infiltration with leukemia and lymphoma is not uncommon, may be the presenting sign, and must be differentiated from polycystic kidneys.

The syndrome of central nervous system involvement is becoming more frequent with prolongation of life with chemotherapy; increased intracranial pressure is not a reliable differential point with neuroblastoma.

There is more than casual relationship between leukemia and mongolism; another case with both diseases is presented.

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ABSTRACT OF DISCUSSION

DR. DAVID H. ALLEN, Wichita Falls: The bone lesions of leukemia have been the subject of much discussion over the past 100 or more years. In 1847, only 2 years after Virchow's description of leukemia, Heschel reported an osteolytic lesion. The pathologic features of the skeletal lesions were well established before Von Jaksch's original report of the roentgen demonstration of osteosclerosis and periosteal new bone formation in 1901. This was the first reference in the medical literature to the roentgen findings. The diagnostic importance and the frequency of these lesions, however, did not receive widespread attention until 10 or 15 years ago. The importance, however, is pointed up by the fact that bone lesions probably occur in about 60 or 70 per cent of children with leukemia, so that the finding is one of no mean importance. The diagnosis of leukemia in children is frought with two problems, not so active in the adult: (1) the tendency of nonleukemic children to produce immature white blood cells in response to severe infection, that is, leukemoid response, and (2) the frequent absence of leukocytosis and immature forms in the peripheral blood of children with leukemia.

These two facts greatly enhance the value of a bone survey. Indeed, one gathers from the literature that the frequency of bone lesions in the patient without leukocytosis is even greater than in those with leukocytosis. Given a patient with fever, anemia, high sedimentation rate, leukopenia, possibly with a cardiac murmur, and with or without pain in the extremities near a joint, and possibly associated with splenomegaly or peripheral adenopathy, the demonstration of the skeletal lesions of leukemia, even though not entirely specific, may be of immeasurable aid to exclude diagnoses such as rheumatic fever, rheumatoid arthritis, sepsis, or infectious mononucleosis, or even poliomyelitis.

The following figures cited by Silverman indicate the need for a survey of all patients with this type of clinical problem rather than just those with bone or joint pain. Of the patients with bone pain, 60 per cent had demonstrable lesions, but of all patients showing lesions roentgenographically, half had pain and half were free of pain so that we must not confine our efforts to those with pain in the extremities.

There is some disagreement about the mechanism of periosteal bone formation. The generally accepted explanation is that the leukemic cells come up through the Haversian canals and elevate the periosteum; but Windholz and Foster have expressed the belief that the periosteal shell is a healing effort brought about by microscopic areas of destruction of the cortex, and they have found no sign of periosteal elevation. There is also a good deal of disagreement about the effect of Aminopterin on bone lesions. Karpinski, for one, thought that the clinical and hematologic remissions were not accompanied by radiographic regressions, but Silverman, on the other hand, reports good improvement.

All diabetics should have annual chest x-rays. Any sudden increase in insulin requirements or loss of weight, even though it appears voluntary, should be followed by a roentgenographic examination of the chest. By earlier diagnosis the prognosis of tuberculosis in the diabetic will be immeasurably improved. Treatment of both diseases must be aggressive.—Robert H. Joelson, M. D., and Henry Dolger, M. D., J. Mt. Sinai Hosp. of N. Y., July-Aug., 1956.

Importance of the Postvoiding Film In Pediatric Excretory Urography

ALEXANDER M. FINLAY, JR., M.D., M.A.C.R.

Denton, Texas

WITH THE DISCOVERY of the roentgen ray and its effect on photographic film in 1895 the field of medicine widened rapidly. Physicians since that time, by the use of contrast media, including gas, metals, and halides, have been able to examine readily organs and their functions which heretofore had been hidden or which could be examined only by hazardous surgery. One of the organic systems which

Dr. Alexander M. Finlay, Jr., Denton radiologist, presented this paper for the Section on Radiology of the Texas Medical Association April 29, 1957, in Dallas.

Much too infrequently excretory urography and studies on the urinary tract are performed on patients with fevers of unknown origin that respond readily to various types of antibiotic therapy. Postvoiding films in such cases may show definite early urinary retention and minimal bladder trabeculation. No longer than 2 minutes should elapse between voiding and obtaining the postvoiding film.

has been investigated by roentgenographic techniques is the urinary tract. In the 27 years since excretory urography was introduced[4] for general clinical use, much has been learned about congenital and acquired uropathy. Techniques for better visualization of the urinary tract, including new contrast media (Diodrast, Hypaque, Renografin, Miokon); drugs to cause better absorption of the contrast media (Wydase and other hyaluronidase drugs); and the administration of fluids, carbonated or otherwise, have been investigated at length.

INDICATIONS

Campbell[5] stated that excretory urography is indicated in any case in which visualization of the urinary tract is desired. This includes chronic pyuria; hematuria not due to nephritis; tumor or pain along the upper urinary tract; congenital anomalies; and disturbances of urination not falling in the above groupings, including enuresis. It is especially indicated in cases in which ureteral catheterization or cystoscopy is impossible. It has been recommended by pediatricians in the investigation of vague abdominal pain and fevers of unknown origin. Wyatt[12] stated that "Pyuria, pain, and hematuria are classical signs of urinary tract infection. These are frequently accompanied by fever, dysuria, enuresis, vomiting, diarrhea, and other systemic manifestations. Urinary tract infection is an indication for excretory urography with one possible exception, namely, a single acute attack of pyuria in a female child, with prompt response to therapy. Such infection in a male child should be thoroughly investigated because, although less common than in the female, it is more often associated with congenital malformations."

Contraindications to excretory urography are (1) marked renal insufficiency, (2) impaired hepatic function, (3) active pulmonary tuberculosis, (4) idiosyncrasy to the drug used, and (5) advanced nephrosis.

TECHNIQUE

Preparation of the patient has been ably covered by various authors.[1, 2, 5, 12] In the younger children (6 months to 5 years) dehydration is difficult to achieve. Visualization has not been a great problem in this age group when the drug can be administered intravenously. When intramuscular injection must be performed, the sites of injection are prepared by injecting 0.5 cc. of a mixture of procaine and hyaluronidase after the method of Gladinkoff and Jacobsson.[7] The use of fluids, either carbonated or noncarbonated, has been found advantageous when small bowel gas has been a problem.[1, 2, 8] The amount of Diodrast used varies with the size of the patient and the method used. In most cases the amounts indicated in the literature accompanying the solution have been administered without untoward reaction and with satisfactory results. Films are obtained with the patient in a supine position. Time intervals have varied slightly; for the most part exposures are made at 5, 10, 15, and 20 minute intervals following intravenous injection. After intramuscular injection, films are obtained at 5, 10, 20, and 30 minute intervals following injection. The patient is then allowed to leave the x-ray diagnostic room but remains in the department or in the immediate vicinity until he urinates, at which time another film is obtained over the bladder area with the patient upright. The time interval between the end of micturition and the obtaining of the film is critical and should not be longer than 2 minutes. By waiting for the normal desire for mic-

Fig. 1. a. Case 1. The urinary bladder and upper excretory urinary tract are well demonstrated in the roentgenogram.

b. Only a small amount of opacified urine remains in the bladder following voiding.

turition rather than forcing the child to void at a given time, a more accurate estimation of the urinary bladder retention is accomplished.

Campbell[5] stated that "various combinations of urinary obstruction and infection constitute over 90 per cent of the major urologic problems in children." Brodny and Robins[3] found evidence of bladder-neck and/or subvesical obstruction as an organic cause of enuresis in almost 25 per cent of all cases of enuresis examined. They stated that cystograms, properly interpreted, frequently show changes in the vesical outline sufficient to establish a diagnosis without further instruction.

CASE REPORTS

CASE 1.—S. K. I., a 6 year old white girl, was seen by her family doctor for fever of unknown origin. Urinalysis (catheterized specimen) showed many white blood cells, many red blood cells, and epithelial cells. An excretory urogram was interpreted as normal. The upper excretory urinary tract was well visualized, and the urinary bladder seemed adequately filled (fig. 1a). A postvoiding film showed only a small amount of dye in the bladder (fig. 1b). Cystoscopy was performed and a very mild cystitis was described. The patient's cystitis cleared rapidly on chemotherapy.

CASE 2.—M. Y., a 9 year old white boy, was seen by his physician following an episode of pyuria and hematuria. Past history, obtained from the child's mother, indicated that the child was healthy until the age of 2½ years, when he began to have frequent upper respiratory infections. These would clear readily on the administration of antibiotics, only to recur about every 2½ months. Blood counts taken over this period of time showed usually mild to moderate elevation of the white blood count. No urinalysis was recorded.

When the patient was 5 years of age, because of frequent episodes, a tonsillectomy was performed. The upper respiratory infections continued unabated, characterized mainly by fever.

At 7 years, the patient was seen by his physician for fever, abdominal pain, cramping, and vomiting. A complete blood count showed normal red blood count and hemoglobin, with 17,500 white blood cells and a left shift. No urinalysis was recorded. A diagnosis of acute appendicitis was made, and an appendectomy was performed. No pathologic report was available on the hospital chart.

Following uneventful recovery from the operation, the child continued to have frequent fevers of unknown origin which responded to antibiotic therapy. The child seemed normally active, had no difficulty in school, but was small for his age.

The night prior to admission to the hospital, he complained of nausea and fever. During the night his mother awakened to find the boy in the bathroom attempting to

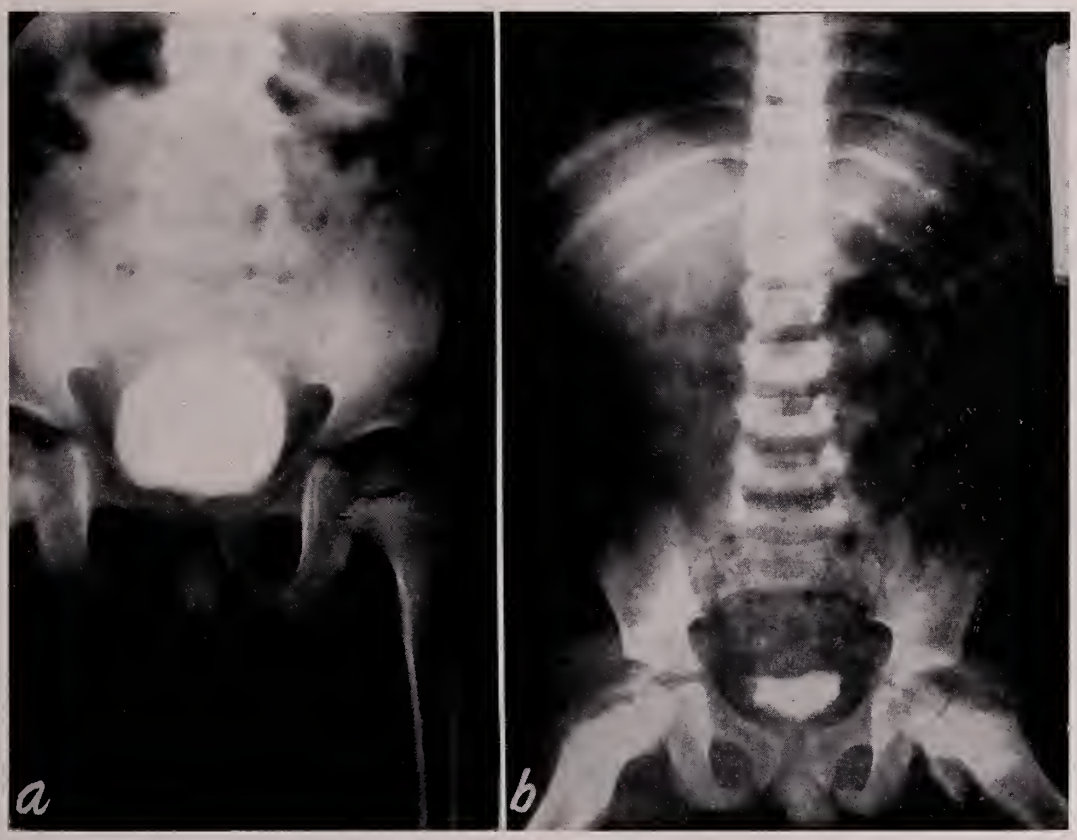

Fig. 2. a. Case 4. The urinary bladder is distended, and no trabeculation can be diagnosed from the roentgenogram.

b. The urinary bladder has a bizarre outline, and there is evidence of abnormal urinary retention after voiding.

urinate. She stated that small amounts of "blood and pus" were noted on the commode bowl.

An excretory urogram revealed rather marked ectasia of the right side of the renal pelvis and calyceal structures. Early changes were suspected on the left. A diagnosis of obstruction of the urinary-pelvic junction on the right was made. The postvoiding film was very suggestive of abnormal urinary retention. The patient was subjected to a plastic procedure on the right kidney and withstood the operation well. Since that time (1 year ago) the patient has gained over 2 inches in height and 20 pounds in weight. No further fevers of unknown origin have occurred.

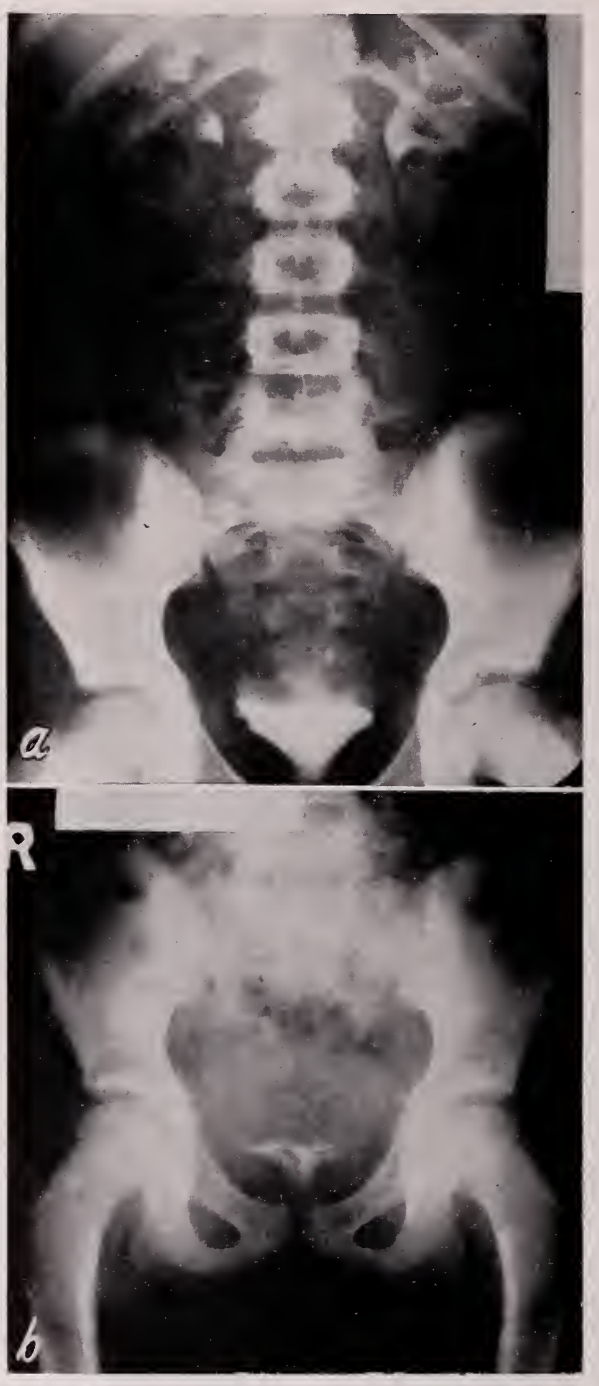

Fig. 3. a. Case 5. The bladder neck and base of the bladder are contracted, and the presence of trabeculation is noted on the roentgenogram.

b. Abnormal retention, trabeculation, and edema of the bladder mucosa are seen on the postvoiding film.

CASE 3.—R. S., a 2 year old white boy, was brought to his family doctor because of a large painful mass in the midline of the lower part of the abdomen. The parents had noted the mass for several days and said it was enlarging. Roentgenograms of the abdomen revealed the space occupying mass and suggested that it might be bladder. The patient was then subjected to catheterization; 750 cc. of urine was drawn off and the mass disappeared. An excretory urogram showed no abnormality of the upper urinary tract, but there was some trabeculation of the bladder. A postvoiding film taken 3½ hours later showed no urinary retention. It was then found that a catheter had been passed twice and the bladder irrigated just prior to the postvoiding film. Following cystoscopy, a postvoiding film revealed marked urinary retention. A subvesical obstruction was diagnosed, and a plastic procedure was performed. No follow-up films have been obtained yet.

CASE 4.—H. W., a 4 year old white boy, was seen by his physician for frequency and enuresis. Urinalysis revealed many white and red blood cells. An excretory urogram showed no abnormality of the upper urinary tract, and the filled bladder outline was not unusual (fig. 2a). A postvoiding film, however, suggested abnormal urinary retention (fig. 2b), which was confirmed by catheterization and cystoscopy. A bladder-neck obstruction was treated and relieved.

CASE 5.—S. R., an 8 year old white girl, was seen by her local doctor because of frequency, fever, and abdominal pain. Urinalysis revealed marked pyuria, and an excretory urogram showed no definite abnormality of the upper urinary tract. The bladder, however, showed marked trabeculation and distortion, with narrowing of the floor of the bladder (fig. 3a). A postvoiding film showed abnormal urinary retention and a bizarre outline (fig. 3b). Cystoscopy revealed a severe cystitis, marked edema of the walls of the bladder, and hypertrophic changes in the mucosa of the bladder neck. Transurethral resection of some of the hypertrophic mucosa was performed following control of the infection, and the condition has been relieved.

CASE 6.—D. E., a 6 year old white boy, was examined because of enuresis. An excretory urogram revealed moderate bladder trabeculation and a postvoiding film showed marked urinary retention. A bladder-neck obstruction was diagnosed by cystoscopy and the patient treated by dilation.

CONCLUSIONS

Whereas excretory urography never should be relied upon solely, the fact that the examination is frequently more readily available in the outlying areas than is adequate cystoscopic examination makes it a very useful procedure. Abnormal findings should be confirmed by cystoscopy and retrograde pyelography as well as other means. The addition of the postvoiding film to the usual excretory urogram allows the examiner to glean additional information as to function of the urinary system. On occasion the only suggestion of abnormality will be found on this film, so frequently omitted. Strict attention to the time

interval between voiding and obtaining the post-voiding film is a necessity, since too long an interval obviously will present false results.

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CASE REPORTS

Meckel's Diverticulum

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THE COINCIDENTAL existence of Meckel's diverticulum is given as approximately 1 to 2 per cent in various autopsy series, but that its presence is of importance only when complications arise is noted from several series which give the incidence of primary pathology causing surgical interference to run about 1 case per 1,000, a much lower incidence than that noted at necropsy. Obviously many diverticula are present and remain undiscovered during intra-abdominal procedures. Perhaps we should be more diligent in looking for coincidental Meckel's diverticula at the time of routine abdominal exploration for other reasons, which might prevent complications from arising later in such persons. Certainly a review of the literature shows that when such complications do occur the morbidity and mortality are of great seriousness.

Dr. Ted Lace, Fort Worth surgeon, presented this paper for the Texas Surgical Society April 2, 1957, in Dallas.

Three cases, each illustrating a different approach to the subject of Meckel's diverticulum, are presented. Such surgical problems as bleeding in infants and children, intussusception, and intestinal obstruction are covered in general, as are embryology and anatomy. The author suggests that surgeons should look for coincidental Meckel's diverticula when routine abdominal exploration for other reasons is done.

Complications of Meckel's diverticulum are inflammation or perforation with peritonitis, hemorrhage, volvulus with obstruction, intussusception, and many lesser occurring complications varying from intra-abdominal perforation with meconium peritonitis to carcinoma. I have not seen the usual medical school complication of inflammation simulating appendicitis. Actually, perforation is not a frequent condition. Bernatz[1] reported in staff meetings of Mayo Clinic a series from literature of 26 cases in 1955. Fish bones were the etiologic agents in 16 cases of the 26 noted. The remaining cases were those of advanced primary inflammatory state with gangrene or from peptic ulceration and perforation. Meckel's diverticulum is usually anatomically a wide mouth structure with an adequate arterial supply of its own, and with much less likelihood of a process developing as is so often seen in the appendix with intraluminal calculus with secondary necrosis.

I have seen 3 cases in the last 3 years, each of which illustrates a different approach. I will also discuss the types of surgical problems in general, namely, bleeding in infants and children, intussusception, and intestinal obstruction.

CASE REPORTS

CASE 1.—A 4 month old boy was first seen in July, 1953, by his attending pediatrician with the history of onset of vague abdominal discomfort which grew worse to the point that at about 10 p. m. the parents gave the baby an enema, and on evacuation they noted a tremendous amount of blood.

There was an absence of any previous bleeding, blood dyscrasias, or history of organic disease. The child had been allergic to milk and had been fed a soy bean mixture. A diagnosis of possible rupture of a vessel in Meckel's diverticulum was noted along with the other possibilities of polyp with erosion or rupture of a hemangioma. Recovery was rapid with transfusion and the child was sent home, to be readmitted in November with the same complaint. Examination was again negative except for a tremendous amount of rectal bleeding of bright blood. The child was put on a low residue diet and antibiotics; bleeding quickly ceased and he was discharged again for observation. Hemoglobin on the second admission was 13.3 Gm. per 100 cc. with a red blood count of 4,020,000 per cubic centimeter, which were about the same findings as on the first admission.

The third admission was 2 days later and after another hemorrhage, admitting count on this occasion being 9.5 Gm. per 100 cc. with 2,800,000 red cells. At this time a gastroenterologist and I were asked for consultation. We agreed on conservative management as long as possible, because of the well known fact, stressed by Gross,[3] that laparotomy in a considerable number of cases of undiagnosed intestinal bleeding fails to reveal the source. Gross[3] stated, "in dealing with children of rectal bleeding of obscure origin it is sometimes exceedingly difficult for even the most experienced physician or surgeon to decide—in an honest and objective manner—whether to operate or not." This was my belief in this child, since he had ceased bleeding on two previous occasions; also I recommended that interval examination be done, particularly proctoscopic examination under anesthesia for a possible polyp.

During this admission a barium enema study was done with no findings of disease. A gastrointestinal series also was negative for evidence of Meckel's diverticulum. Gross[3] has said that he does not try to demonstrate Meckel's diverticulum by roentgen ray, as it is almost never demonstrable. However, Lovelace and his associates[4] reported in 1950 a case of hemorrhage from Meckel's diverticulum in which a diverticulum was demonstrated roentgenographically, by using a method of forcing barium past the ileocecal valve with moderate pressure from a raised enema can and using to introduce the barium a number 18 Bardex type balloon catheter inserted into the rectum with the balloon distended at a high level.

This patient was admitted again November 29, 1953, with another hemorrhage. At this time I was ready for surgical exploration in spite of what seemed to be an unsatisfactory proctoscopic examination having been done. However, a virus pneumonitis was quickly noted and the exploratory surgery delayed. Fortunately, after this postponement, the child was studied proctoscopically with what I thought adequate elimination of rectal polyp as a diagnosis.

The child was hospitalized again March 15, 1954, for elective surgical exploration. Preoperative diagnosis was "past rectal hemorrhage with probable Meckel's diverticulum." Exploration was done through a right paramedian incision. The cecum was found completely unattached and in the left side, rather than in the right lower quadrant from which point it had been hoped to start exploration of the ileum. By beginning at the cecum and tracing the ileum, a Meckel's diverticulum was finally found at an unusually high position on the ileum, estimated at proximal to its midlength. The diverticulum had a broad base and was slightly eccentric on the antimesenteric border of the ileum. The diverticulum measured approximately 1.25 cm. at its base and about 2 cm. in length and with a very thick wall which precluded a simple excision after clamping of the base. The diverticulum was excised with a wedge type incision, saving approximately one-fourth of the circumference of the ileum intact at its mesentery border. After this open excision, a large single vessel was noted in a subserous position supplying an area of ulceration in the mucosa of the diverticulum. The defect was closed with an ordinary two row technique, the first with 3-0 intestinal atraumatic chromic suture inverting the mucosa with an in and out loop suture, and the second of interrupted 3-0 silk. The previously noted large artery was securely ligated and the abdomen closed in layers without drainage.

Pathologic finding was that of a Meckel's diverticulum containing gastric mucosa with an area of subacute peptic ulceration. Recovery was rapid and the child has remained well.

Freedman,[2] in a review of 21 cases of diverticula causing bleeding, noted that 9 of the patients were less than 1 year of age and 16 were boys. Gross blood was the chief symptom in all cases and varied from large quantities of bright red blood containing clots or currant jelly material to the passage of tarry stools. Bright red blood was mixed with feces in only 4 cases. Bleeding was silent in 12 of the 21 cases but associated with colicky pain of variable severity in 9 remaining. This pain was usually located about the umbilicus or on the right side of the abdomen.

Gross' series[3] of 149 patients for whom diverticulectomy was performed listed hemorrhage as the chief symptom in 50 or an incident of one-third, with 80 per cent of the patients less than 2 years of age. The principal alarming symptom was the sudden passage of a bloody stool in a young child who had had no previous symptoms. He noted that although the first stool might be dark or black in color, subsequent ones were invariably bright red, as was a constant finding in this case. The massiveness of bleeding is in contrast to the spotting of blood occurring with anal fissures or rectal polyps. Also absent in this patient, as in typical series, was the agonizing pain which accompanies the bleeding of intussusception. Intussusception from Meckel's diverticulum, on the basis of statistics, is much more often a condition of older children.

Gross[3] noted in a later series during 1950 an occurrence of Meckel's diverticulum in 3 of the 65 patients admitted to the hospital because of rectal bleeding of undetermined origin. Benign polyp of the rectum accounted for 11 cases, proctitis and fissure for 6, with gastritis or enteritis, ulcerative colitis, duodenal ulcer, intestinal duplication, and particularly systemic hemorrhagic disease and hemorrhagic disease of the newborn accounting for 27, leaving as gastrointestinal bleeding of unknown etiology 18 cases of the total 65. The 18 patients who were discharged with a diagnosis of rectal bleeding of unknown etiology did well as a group, 2 continuing to have rectal bleeding for a considerable length of time, 1 developing prolapse of the rectum, a fourth dying of a coincidental illness, the remaining 14 having no further difficulty.

In reviewing this case today I feel that surgical interference might have been resorted to more

promptly. However, on most of the occasions the hemorrhage was not at the point of being "bled out," and with each incident of cessation, the overanxious parents were more than glad to defer surgical exploration. One postponement resulted from the coincidental virus infection.

CASE 2.—A 9 year old girl was admitted on September 26, 1955, with a history of vomiting for 24 hours and abdominal pain for 18 hours. The pain was noted to be cyclic and increasing in intensity, and following the peaks the patient vomited. There was no blood in the vomitus. There was no history of diarrhea or constipation. The appetite had been good; the bowels had moved normally on the day prior; and no history was given of bloody stool, currant jelly stools, or the like. The following morning the patient had a rectal temperature of 102 F. and was so under sedation that interview was impossible. The peaks of pain described on the admission note were not present, probably from oversedation. The salient finding was an abdominal mass of considerable size, estimated at about 10 cm. in diameter and having the rounded general feel of a cyst. The mass was quite movable. It definitely was out of the pelvis but possibly could have been an ovarian cyst. Rectal examination showed no blood on the examining finger. Mesenteric cyst and reduplication of the intestinal tract with submucosal or intramural hemorrhage were noted as possibilities. Meckel's diverticulum was a likely diagnosis with possibly an obstructing band or omphalocele present. Intussusception, ovarian cyst with twisted pedicle, intestinal reduplication, and so forth, were also possible diagnoses.

Exploration was done as advised through a right paramedian incision, and a large mass of ileoileal intussusception delivered through the abdominal incision. Exploration revealed extreme gangrene of the intussuscepted loop and irreducibility even had the bowel been viable, which it was not. The mass was resected, ligating the mesentery with a chromic-O ligature and doing an end to end anastomosis of normal bowel. An adequate stoma was obtained with a two layer technique suture. Water, 150 cc., with 1.5 Gm. of neomycin was left in the abdominal cavity, which was closed without drainage. Pathologic diagnosis was that of intussusception of the small intestine with hemorrhage, necrosis, and acute inflammation. An invaginated Meckel's diverticulum at the head of the intussusceptum loop was found. Recovery of the patient was rapid and without event.

Noting a wide difference between the classical type of acute intussusception and that initiated by Meckel's diverticulum, Harkins[5] reported an exhaustive survey of all cases of Meckel's diverticulum type of intussusception in the English language literature up to 1933. This was followed by a second review from 1933 to 1951 by Holowach, Thurston, and McCoy,[6] with additional cases seen at St. Louis Children's Hospital. This second review was done from the same approach as Harkins' series,[5] and the similarity in statistics is amazing with the exception of the drop in mortality from 41 per cent to 2.8 per cent because of improved diagnosis, better operative procedure, and, of course, better preoperative and postoperative care.

In a brief analysis of both the series of Harkins[5] and the St. Louis Children's Hospital review, one notes that whereas the majority, 80 per cent or more, of acute intussusceptions occur before the patient is 2 years of age, those associated with Meckel's diverticulum are conditions of older children or adults, 94.2 per cent in the second series. The appearance of shock or apathy, so characteristic of acute intussusception, was seldom noted in the older patient. Both series showed that abdominal mass is much less constantly found in intussusceptions due to Meckel's diverticulum, although this certainly is not true in the case presented. Actually, in the case reported the mass was of such large size as to cause confusion. There is also noted, as in my case, typical absence of melena in intussusception with Meckel's diverticulum, partially attributed to the tamponade effect of the intraluminal diverticulum, and also in an undetermined manner to the older age of the affected patients.

Also half the patients in both series had a past history of similar abdominal complaints, not found in my case, but it is worth mentioning in stressing chronicity of symptoms of Meckel's diverticulum in obstruction. In contradistinction to the usual intussusception, the majority of Meckel's cases were ileoileal, probably because of the barrier of the ileocecal valve to the added bulk of the space-taking Meckel's diverticulum. I believe resection is much more often necessary in cases of Meckel's intussusception, gangrene being a much more rapid process. This latter observation, that is, rapid necrosis, however, is hard to understand or correlate with the infrequency of melena, but the St. Louis series showed melena present in only 17 cases of 116 cases reviewed, in contradistinction of melena in 80 per cent of all cases of intussusception.

The third case is more of a curiosity but is also a beginning point from which to discuss briefly anatomy and embryology of Meckel's diverticulum.

CASE 3.—A 29 year old man was admitted to the emergency room with a 12 hour history of acute abdominal epigastric pain. The pain was described as sharp, stabbing, and constant, radiating to the midline of the chest. There had been nausea and vomiting for 1 day but without blood in the vomitus. The patient gave a history of a previous episode in 1942, undiagnosed at that time. Past history was otherwise irrelevant except that appendectomy had been performed in childhood. Examination noted a well developed, well nourished man in acute distress. Blood pressure was 135/75; temperature, pulse, and respiration were normal. The abdominal findings were apparent exquisite pain and tenderness, but without boardlike rigidity, although muscle guarding was considerable. The intern's diagnosis on admission of the patient was acute gastritis.

The day after admission the patient had more obvious signs of obstruction. Temperature was 101.6 F. with the pulse rate becoming elevated to 100 pulsations per minute. The abdomen was exquisitely tender; peristalsis was moderate. No masses were determined. Scout film of the abdomen had not been made. My diagnosis was typical closed loop obstruction, and immediate surgery was recommended and performed.

Exploration of the abdomen was done through a right rectus muscle splitting incision with immediate visualization of what was the worst Chinese puzzle type of intestinal disease I have ever encountered. Gangrenous loops of bowel

seemed to be going in all directions, without a starting point for tracing. There was a multitude of adhesions in the lower third of the ileum to the undersurface of an old McBurney scar. Distal to this point the ileum was moderately necrotic from obstruction, with distention; and a loop was traced upwards to a point where a Meckel's diverticulum, originating from a lower loop of ileum, ran over and was continuous and patent with an omphalomesenteric cyst at the umbilicus. This Meckel's diverticulum, with an attachment at the umbilicus, formed one point of obstruction, and the adhesion of a more proximal loop of bowel to the right of McBurney's scar formed another point of obstruction. Between these two points a rather long loop of ileum in a figure of eight type of placement was gangrenous and widely distended. Proximal to this figure of eight loop was normal ileum, except that it was distended from obstruction.

While I was trying to find a starting point, the gangrenous elongation of the tense Meckel's diverticulum was accidentally and probably fortunately pulled in two, with, however, a large spillage of intestinal content, including previously eaten fresh corn. Clamps were placed on either end of this parted diverticulum; the loop was then untwisted and unraveled to a more proximal part of ileum, at which point it was densely adhered and extremely gangrenous at its attachment to the undersurface of the old McBurney incision.

At this point the ileum also parted with another intestinal spillage. This rip in the ileum was sutured with an inverting row of chromic suture and a second row of 3-0 atraumatic intestinal silk. The Meckel's diverticulum was then excised, clamping across the base and suturing the base with continuous chromic 3-0 intestinal sutures, continuing back again, and incorporating serosa in a second row. The distal end of the Meckel's diverticulum was then dissected along with its continuation to the underside of the umbilicus. It was thought that the involved bowel was viable to the point of sustaining life, the abdomen being closed in layers without drainage, but using stainless steel tension suture and incorporating all layers of the abdominal wall except the peritoneal suture line.

Pathologic diagnosis of the specimen removed was Meckel's diverticulum showing extensive acute and chronic diverticulitis and ulceration. Gastric mucosa was also noted in a portion of the lining. Total recovery followed, complicated only by an abdominal wall abscess which responded to simple drainage.

EMBRYOLOGY AND ANATOMY

Any vestige of the omphalomesenteric duct originally connecting the yolk sac to the primitive midgut may remain, varying from true Meckel's diverticulum, vestigial bands to the umbilicus, patent ducts, omphalomesenteric cyst, or umbilical sinuses, which may be true fecal fistulas. Meckel's diverticulum should fulfill the criteria of being antimesenteric, from the ileum, having its own blood supply, and containing all layers of bowel. Heterotopic tissue in Meckel's diverticulum occurs in 15 to 20 per cent of cases, rising to a 70 to 75 per cent incidence in symptom-producing cases of Meckel's diverticulum. Gastric mucosa is the more common, followed by duodenal mucosa, pancreatic tissue, colonic mucosa, or varied combinations of them. In this particular case the diverticulum continued as a sinus and omphalomesenteric cyst completely patent to the undersurface of the umbilicus, the skin of the umbilicus only preventing a fecal fistula.

Case 3 also shows Meckel's diverticulum as a cause of chronic intestinal obstruction. Meckel's diverticulum has proved to be the underlying cause of obstruction in from 2.6 per cent up to 6 per cent in various series. In adults intestinal obstruction is the most frequent complication produced by diverticulum. Obstruction may be by invagination of a diverticulum into the ileum with chronic obstruction occurring.

Of course we have seen before how it acts as a lead in intussusception. Chronic forms of small bowel obstruction are also noted increasingly, invagination persisting for long periods of time with a picture of chronic or low grade obstruction. Towbin[7] presented 41 cases of obstruction due to Meckel's diverticulum reviewed by Hertzler and Gibson, 9 of the 41 patients suffering many repeated attacks of obstruction and in 1 case monthly episodes recurring over a period of 5 years. Our 29 year old man (case 3) gave a history of a definite similar episode occurring previously and, on later questioning, a history of a vague type of digestive disturbance, pointing out that foods many times had caused cramps and vague abdominal discomfort but never in a definite pattern.

SUMMARY

Three types of cases in which Meckel's diverticulum was the primary condition in surgical cases have been presented. The problem of bleeding in children, intussusception, and intestinal obstruction have been approached by means of these 3 cases, along with a brief discussion of embryology and anatomy. Difficulty in diagnosis of Meckel's diverticulum preoperatively had been noted, with the constant reminder that it may be present as causative agent in cases of abdominal perplexity. Meckel's diverticulum also should be remembered as a chronic cause of partial or recurring intestinal obstruction.

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Simple Ulcer Of the Colon

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NONSPECIFIC, simple ulceration of the large bowel is a rare condition of unknown cause; its importance lies in the seriousness of its clinical course. The associated mortality rate, still unacceptably high, is related to the tendency of the lesion to perforate. Characteristically, it masquerades as one of the more common serious abdominal conditions and

Dr. Edwin M. Sykes presented this paper before the Texas Surgical Society when that group met in Dallas April 1 and 2, 1957.

Diagnosis of simple ulcer of the colon is extremely difficult because symptoms are confused with those of more common conditions such as appendicitis and carcinoma. Three case reports are given, and surgical treatment is discussed.

it has practically never been correctly diagnosed prior to laparotomy or autopsy. Even at laparotomy, it usually is confused with other more common colonic lesions, particularly carcinoma. The rarity and seriousness of the condition, combined with the difficulties in making the diagnosis, justify the following case reports.

CASE REPORTS

CASE 1.—N. L., a 45 year old white woman, was admitted to a hospital May 22, 1954, complaining of abdominal cramping pain of acute onset for 2 days, and the passage of several red, bloody stools for 1 day. The pain had shifted to the right lower quadrant prior to admission. No nausea or vomiting was present. An appendectomy had been performed in the past. Physical examination revealed moderate tenderness in the region of McBurney's point and dark red blood on the examining finger following rectal examination. Anoscopy and sigmoidoscopy were negative. Complete blood count and urinalysis examinations were within normal limits. Stool examination was negative for ova and parasites. The patient was placed on medical regimen consisting of bland diet, atropine, streptomycin intramuscularly, and oxytetracycline orally. The bleeding soon ceased and the right lower quadrant pain quickly improved but never disappeared. Roentgenographic study of the colon with barium enema revealed an irregularity at the junction of cecum and ascending colon. A diagnosis of carcinoma of the cecum was made and the patient was transferred to Santa Rosa Hospital for surgery, which was done June 2.

On the anterior wall of the cecum and lower ascending colon, and not adherent to any adjacent structure, was a broad, indurated, plaque-like thickening of the bowel, measuring 5 by 4 cm. The serosa over this area was granular and faintly hyperemic. The lesion was located on the level of the ileocecal junction. The remaining parts of the large and small bowel were normal to inspection and palpation. The appendix was absent. No regional lymph node enlargement or evidence of hepatic metastasis was present. A right hemicolectomy was performed.

The post operative course was complicated by wound infection, and 2½ years later by an incisional hernia, which was repaired.

Pathologic examination revealed a large, subacute, nonspecific, solitary ulceration of the colon, measuring 4 cm. in diameter. The ulceration extended to the muscularis propria. No vascular lesions of a primary nature were found.

This experience stimulated a search for similar cases in San Antonio hospitals. Two cases occurring during the past 5 years were found in which the lesion was proven by pathologic examination to be benign and nonspecific.

CASE 2.—M. R., a 25 year old white woman, was admitted to the hospital June 6, 1956, with abdominal pain and nausea of 3 days' duration. Physical examination revealed tenderness in the right lower quadrant and temperature of 99.4 F. The white blood count was 15,900 per cubic centimeter with 95 per cent polymorphonuclear leukocytes. A preoperative diagnosis of acute appendicitis was made, but at laparotomy, performed the day of admission, the appendix was found to be normal. An indurated inflamed mass was noted on the anterior wall of the ascending colon 2 to 3 cm. from the appendiceal base and just above the level of the ileocecal valve. Dissection over this mass revealed that perforation of the colon had occurred, the site of perforation being walled off solely by adjacent appendices epiploicae. The perforating lesion was excised and the colon closed in layers. Appendectomy was performed and a tube placed through the appendiceal ostium and into the terminal ileum. The tube was brought out through the abdominal wall, and the cecum was sutured to the parietal peritoneum. The postoperative course was uneventful.

Pathologic examination of the specimen showed marked, acute, nonspecific inflammation with ulceration of the cecum. The appendix was normal.

CASE 3.—G. P., a Negro woman, age 51, was admitted August 10, 1953, with a diagnosis of partially obstructing carcinoma of the sigmoid colon. The patient had had alternating diarrhea and constipation with an occasional bloody stool for the preceding 4 months. There was tenderness over the area of the descending colon. Barium enema revealed a constricting lesion of the sigmoid; no diverticula were noted; and the rest of the colon was normal to roentgenographic examination.

At surgery on August 11, the lower descending colon and adjacent sigmoid colon were noted to be thickened, indurated, and inflamed for 4 inches. One similar area was felt to be present in the region of the cecum and another in the transverse colon. The obstructing lesion in the sigmoid was felt to be an inflammatory lesion and resection was performed with end-to-end anastomosis. Appendectomy and cecostomy also were performed. The postoperative course was uneventful.

Pathologic examination revealed a solitary ulceration 4.5 cm. long and completely encircling the colon except for an 11 mm. gap of normal mucosa. The base of the ulceration was bright red and granular. Definite constriction and narrowing at the level of the ulcer was noted. The surrounding mucosa was normal. Microscopically, a nonspecific ulcer was found: the wall was several times its normal thickness, and granulation tissue replaced submucosa. Considerable subserosal edema was noted.

DISCUSSION

The diagnosis of simple, nonspecific ulcer of the large bowel rests upon the exclusion of other more common inflammatory diseases, such as the chronic granulomas of tuberculosis and actinomycosis, diverticulitis, amebic granuloma, the multiple superficial ulcerations of acute bacillary colitis, idiopathic chronic ulcerative colitis of either the segmental or universal type, and bowel ulceration secondary to intussusception, volvulus, and mesenteric vascular occlusion. Such exclusions are not always clearly demonstrable. There are two uncommon and poorly understood conditions, idiopathic gangrene of the cecum and so-called primary phlegmonous cecitis, which are generally differentiated from simple ulcer of the large bowel; however, these latter three conditions, each of unknown etiology, may represent differing manifestations of the same basic abnormality. It appears from a close study of reported cases that simple ulceration, localized gangrene, and phlegmonous thickening of the surrounding bowel wall can coexist.

In 1941, Barlow[1] collected and analyzed 80 cases of simple ulcer of the large bowel reported up to that time. Since that time 23 more cases have been found. Reported cases, therefore, now number in the neighborhood of 100.

In the series reviewed in 1939 by Cameron,[3] whose primary interest was in the cecum, the over-all mortality was 57 per cent; none of the patients in that series survived without surgery; the surgical mortality rate was 40 per cent; and in the entire group approximately 75 per cent of the patients had suffered perforation of the colon when first seen. Since 1941, refinements in colon surgery and the development of modern surgical adjuncts, especially antibiotics, have improved this grim picture somewhat. An analysis of the 23 more recently reported cases, to which are added the 3 cases reported herein, reveals that in the past 16 years there have been 5 deaths among the 24 cases in which the outcome was given. In 3 of the deaths, the diagnosis had been missed during life and was made at autopsy; 2 deaths followed surgical efforts directed toward the ulcer itself.

The tremendous difficulties in making a correct diagnosis are demonstrated in the fact that, with 2 exceptions, the correct diagnosis has not been made prior to laparotomy or to autopsy.[2, 9] In the majority of instances the disease simulates either acute appendicitis or carcinoma of the cecum or colon. In fact, many of the cases were confused with both of these conditions, the patient being operated upon initially for acute appendicitis and a lesion then being found which was thought to be carcinoma of the right colon or cecum. The frequency with which a preoperative diagnosis of acute appendicitis is made is understandable when it is recognized, first of all, that approximately 50 per cent of all simple ulcers of the large bowel occur in the cecum or ascending colon[1] and, second, that the vast majority of the cases are acute in their onset. It is the unusual situation to have symptoms persisting for several months as in case 3. Among the 25 cases reported since 1941 in which surgery was done, 11 patients were operated upon with an initial diagnosis of appendicitis; in these cases, after the peritoneal cavity had been opened, the cecal or colonic lesion was diagnosed on gross pathologic grounds as carcinoma in 7 cases. The lesion was examined at laparotomy and an opinion expressed as to the gross pathologic diagnosis in a total of 19 cases; in 11 the lesion was thought to be malignant.

It is apparent that diagnostic difficulties created by this lesion, even when seen and palpated at operation, have generally led, on the one hand, to underestimation of the actual pathologic disturbance present, emergency laparotomy being performed with a preoperative diagnosis of acute appendicitis; or, on the other hand, the actual disease is overestimated and the lesion thought to be a colon malignancy, leading to radical colon resection. It has been advocated, where the question of diagnosis at laparotomy exists, that the lesion be subjected to biopsy.[8] At the present time, when the trend is toward making every effort to prevent the scattering or entering of neoplastic cells into regional vessels, adjacent bowel lumen, and the operative area, opening the colon for a biopsy of the lesion probably would find little general favor. The fact that the condition has been treated successfully by simple local excision might make it appear that radical colon resection constitutes over-treatment and subjects the patient to an unjustified risk. For the following reasons, however, colon resection appears in most cases to be the procedure of choice: (1) A correct diagnosis of simple ulcer by any means is extremely difficult to achieve, and it therefore seems wisest to treat the condition as if it were the more common lesion it simulates, namely, carcinoma. (2) Many of the simple ulcers are so large (as in cases 1 and 3) that performing an adequate local excision actually would require a colon resection. (3) Occasionally, there are several simple ulcers in the same part of the colon, and excising merely the one most apparent may not be adequate treatment. (4) The mortality rate of colon resection for this condition appears acceptable.

Prior to 1941, 11 cases were treated by resection and anastomosis, with 10 survivors. In the 26 more recent cases reviewed, 18 patients had colon resections performed; 15 survived, 1 died, and in 2 cases, the outcome was not stated. Where free perforation into the peritoneal cavity has occurred, the lesion should be treated in accordance with the principles of colon perforation, namely, exteriorizing the site of perforation, or closing it and performing proximal colostomy. Of the 18 patients in whom colon resection was performed, 6 had right hemicolectomies performed immediately and without prior colon preparation; all of these patients were operated upon with the preoperative diagnosis of appendicitis; of these, 5 survived and in 1 the outcome is not stated.

CONCLUSIONS

Three cases of simple, nonspecific ulcer of the large bowel are presented. The recent literature is reviewed and emphasis is placed on the continued high mortality rate and on the difficulties in diagnosis, especially the differentiation of simple ulcer from acute appendicitis preoperatively and from colonic carcinoma at the time of surgery. The treatment of the condition is surgical, and it appears that where free perforation has not yet occurred, colon resection is the procedure of choice.

REFERENCES

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Dr. Sykes, Nix Professional Building, San Antonio.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-22, 1958 (Executive Council, Jan. 19, 1958). Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, Clinical Meeting, Philadelphia, Dec. 3-6, 1957. Dr. David B. Allman, Atlantic City, Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

OCTOBER

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Grosse Point 30, Mich., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Gastroenterology, Boston, Oct. 21-23, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Heart Association, Chicago, Oct. 25-29, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1958. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

Association of American Physicians and Surgeons, Interim Meeting of Delegates, Oct. 18, 1957. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southwestern Medical Association, El Paso, Oct. 9-12, 1957. Dr. Celso C. Stapp, El Paso, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Texas Dermatological Society, El Paso, Oct. 12, 1957. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Geriatrics Society, San Juan, Oct. 25-26, 1957. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Neuropsychiatric Association, Dallas, Oct. 18-19, 1957 (with Central Neuropsychiatric Association). Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Surgical Society, Waco, Oct. 7-8, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Fourth District Society, Brownwood, Oct. 24, 1957. Dr. Scott H. Martin, San Angelo, Pres.; Dr. Fred Spencer, Jr., 308 W. Chandler, Brownwood, Secy.

Eighth District Society, Bay City, Oct. 19, 1957. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Texas State Board of Examiners in Basic Sciences, Austin and Houston, Oct. 18-19, 1957. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Ratliff, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

NOVEMBER

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. Carl E. Arbesman, Buffalo, N. Y., Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, Los Angeles, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of General Practice, Dallas, March 22-27, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.

American Association for Thoracic Surgery, Boston, May 16-18, 1958. Dr. Brian Blades, Washington, D. C., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Edgewater Park, Miss., April 23-25, 1958. Dr. George F. Cahill, New York, Pres.; Dr. W. J. Engel, 2 East 54th, New York 22, Secy.

American Association of Obstetricians and Gynecologists. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Merle Moore, Portland, Ore., Pres.; Dr. David Thomas, 1467 Harper St., Augusta, Ga., Secy.

American College of Chest Physicians, San Francisco, June 18-22, 1958. Dr. Burgess L. Gordon, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Richard A. Kern, Philadelphia, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5-8, 1958. Dr. Ira H. Lockwood, Kansas City, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American Congress of Physical Medicine and Rehabilitation. Dr. Donald L. Rose, Kansas City, Kan., Pres.; Dorothea C. Augustin, 30 N. Michigan Ave., Chicago, Executive Secretary.

American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.

American Gastro-Enterological Association, Washington, D. C., May 30-31, 1958. Dr. M. W. Comfort, Rochester, Minn., Pres.; Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society, Asheville, N. C., May 19-21, 1958. Dr. Howard C. Taylor, Jr., New York City, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Laryngological, Rhinological, and Otological Society, San Francisco, May 21-23, 1958. No 1957 meeting. Dr. Lawrence R. Boies, Minneapolis, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 16-18, 1958. Dr. Israel S. Wechsler, New York, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, White Sulphur Springs, W. Va., May 28-30, 1958. Dr. Walter S. Atkinson, Watertown, N. Y., Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27, 1958. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Atlantic City, N. J., May 8-9, 1958. Dr. A. Ashley Weech, Cincinnati, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.

American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E. Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, San Francisco, May 12-16, 1958. Dr. Harry C. Solomon, Boston 15, Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Society of Clinical Pathologists. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, New York, April 16-18, 1958. Dr. John H. Mulholland, New York, Pres.; Dr. William Altemeier, Christian R. Holmes Hospital 19, Cincinnati, Secy.

American Urological Association, New Orleans, April 28-May 1, 1958. Dr. William J. Baker, Chicago, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

International College of Surgeons, U. S. Chapter. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Philadelphia, May 18-23, 1958. Dr. William M. Morgan, New York, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum, Shreveport, Feb. 23-25, 1958. Dr. H. Whitney Boggs, Shreveport, Pres.; Dr. J. D. Youman, 2021 Line Ave., Shreveport, Secy.

Southwest Regional Cancer Conference. Dr. O. L. Morphis, 815 Medical Arts Bldg., Fort Worth, Chm.

Southwestern Society of Nuclear Medicine. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Assembly, Shreveport. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

United States-Mexico Border Public Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

State

Private Clinics and Hospitals Association of Texas, Dr. R. D. Holt, Meridian, Pres.; Mr. Bill Schumacher, Box 383, Sherman, Executive Secy.

Texas Academy of General Practice, San Antonio, Sept. 22-24, 1958. Dr. G. B. Cleveland, Austin, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, Houston, April 20-21, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, Houston, April 20, 1958. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Houston, April 20, 1958. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Diabetes Association, Houston, April 20, 1958. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Heart Association, Houston, April 20, 1958. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Dallas, May 5-8, 1958. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Industrial Medical Association, Houston. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Ophthalmological Association, Houston, April 22, 1958. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.
Texas Orthopedic Association, Houston, April 21, 1958. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.
Texas Physical Medicine and Rehabilitation Society, Houston, April, 1958. Dr. Odon F. von Werssowetz, Gonzales, Pres.; Dr. Edward M. Krusen, Baylor Hospital, Dallas, Secy.
Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.
Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.
Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.
Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.
Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.
Texas Society of Anesthesiologists, Houston, April 20, 1958. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.
Texas Society of Gastroenterologists and Proctologists, Houston, April 20, 1958. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.
Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.
Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.
Texas Society of Plastic Surgeons, Houston, April 19, 1958. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.
Texas Traumatic Surgical Society, Houston, April 20, 1958. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.
Texas Tuberculosis Association. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, 2406 Manor Road, Austin, Executive Director.
Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.
Second District Society, Lamesa, Spring, 1958. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.
Third District Society, Amarillo, April 5, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.
Fifth and Sixth Districts Society, Corpus Christi, 1958. Dr. Foy Moody, Corpus Christi, Pres.; Dr. Thelma Frank, 129 Rainbow Lane, Corpus Christi, Secy.
Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.
Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.
Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.
Eleventh District Society. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.
Twelfth District Society, Corsicana, January 14, 1958. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.
Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.
Fifteenth District Society. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Executive Offices, 433 Medical Arts Bldg., Dallas 1.
International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.
New Orleans Graduate Medical Assembly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.
Postgraduate Medical Assembly of South Texas. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.
State Tumor Conference, Wichita Falls, April 12, 1958. Dr. Edwin C. Bebb, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Medical Examiners, Fort Worth, Dec. 5-7, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

OF GENERAL INTEREST

SHANNON HOSPITAL INITIATES LECTURESHIP IN MEDICINE

Dr. Paul Dudley White, Boston, and Dr. Irvine H. Page, Cleveland, will be guests of the Electrocardiograph Committee of Shannon West Texas Memorial Hospital, San Angelo, at its first Lectureship in Medicine November 16.

This committee accumulated funds for the lectureship by interpreting electrocardiograms at the hospital; their 50 per cent of the collections was put into a fund to be used for the lectureship, which is to be an annual affair.

Invitations will be sent to approximately 3,000 physicians in the state, including members of the Texas Heart Association and Texas Academy of Internal Medicine, and all doctors in the San Angelo trade area. Although invitations are being sent in order to establish the formality of the lectureship and are necessary for attendance, the committee reports that it will be happy to send invitations to any doctors requesting them.

The invitations will include a complete schedule of events; there will be no registration fees, but there will be a charge for the luncheon and banquet which have been planned.

Members of the Electrocardiographic Committee are Drs. F. T. McIntire, J. L. Read, F. M. Spencer, G. N. Irvine, A. E. Landy, R. G. Boster, and T. G. Coleman, all of San Angelo.

Medicine a Factor In Public Assistance

Next month Texans will vote on an amendment to the state Constitution which would increase the maximum monthly payment to needy aged, needy blind, and needy children, the maximum not to exceed $21 from state funds and the amount expended by the state not to exceed the amount from federal funds. Next year, another amendment which would permit direct or vendor payments for medical care on behalf of recipients of Old Age Assistance funds will be before the electorate.

These facts bring special interest of Texas physicians to information recently issued on federal-state public assistance programs released by the Washington office of the American Medical Association.

More than 5,000,000 persons currently are receiving public assistance checks monthly from funds supplied jointly by the United States and states, and probably another half million are on local or state relief rolls, the AMA points out. The United States got into this activity in 1936, when the country was still trying to shake off the depression. If the states would themselves contribute specific percentages for the purposes, the United States agreed to allocate money for the assistance of four classes of indigent—those past 65 years of age, the blind, the totally and permanently disabled,

and dependent children and their guardians. (United States aid is still limited to these groups.) In 1936 the United States contributed $209 million for the use of these people. For the current fiscal year the United States is giving the states $1.6 billion for these programs, a 700 per cent increase in 20 years. At the same time the states have increased their payments to $1.4 billion, for a total of $3 billion to maintain approximately 5.1 million persons on various forms of public assistance. A growing proportion of this money is designated exclusively to pay for medical care.

Before the United States moved into the picture, and for some time after, the relatively few relief dollars available for the many persons in need meant that money was spent only for food, clothing, and shelter. As for many years past, the medical profession generally assumed the major obligation of providing services to the needy sick without charge, the AMA states. This was the philosophy and often the practice in public assistance even between 1936 and 1950, during which all payments for relief were made directly to the recipients themselves, as required by federal law. In 1950 Congress changed the law to improve the medical care of the indigent. The new law permitted the states to set up pools of relief money, from which payments could be made to the vendors of medical care for the treatment of public assistance recipients. (Physicians, hospitals, dentists, nurses, nursing homes, druggists are identified as the "vendors" of medical care.) In 1950, it was estimated that $300 million was being spent annually (by United States, states, and communities) for medical care for relief recipients. About a third of the states decided to take advantage of the new 1950 law and set up "pooled funds" to pay the vendors directly.

In 1956, Congress decided on another change, the AMA relates. It authorized payment to states of $3 per month for each adult on public assistance and $1.50 for each child (to be matched equally by the states), for medical care. But states could no longer make vendor payments within the $60 individual monthly maximum on assistance payments, something that was permitted under the 1950 legislation. Among the 20 or so states that between 1950 and 1956 had adopted the pooling or vendor payment system were a few that actually would lose federal medical care money when the new law went into effect. In response to complaints from these states, Congress again changed the law in 1957. Under this most recent change, states are permitted to make an annual choice between continued use of pooled funds for payments to vendors under the 1950 system or to adopt the new 1956 vendor system with its $3 and $1.50 per month United States contribution. At the same time, they may continue recipient medical care payments under either system, that is, giving money directly to individuals who are expected to assume responsibility for paying their own doctor and hospital bills.

How are states reacting to this new offer of more federal money for medical care of the indigent? According to officials of the Federal Bureau of Public Assistance, turning to vendor payments is bringing about new patterns in health care for the indigent. In many states care for the indigent up to now has been a county responsibility. In others, particularly New England, it is the responsibility of cities and towns. In these situations, the counties and communities are forbidden by state law to accept federal money to help in the medical care of indigents. As a result, many state legislatures are moving to change state constitutions to make it possible for counties and communities to (a) accept federal and state money for this purpose and (b) participate in pooled vendor-plan arrangements. Thus in these areas the tendency is for the management and financing of medical care for the indigent to leave the local level and move to the state level.

Another change of significance to the medical profession also is taking place, the AMA indicates. In the early years of organized relief, as has been noted, the limited money available for public assistance had to be spread over many families, leaving them only enough for food, clothing, and housing. Their medical care was largely a local, private charity proposition, with the doctors and the hospitals giving a great deal of service without pay. Over the years, with the expansion of social security and the growth of industrial and private retirement plans, more and more of the necessities of life are being supplied low-income groups from sources other than public assistance. As a consequence, more and more public assistance money is being released for medical care, something that few public welfare agencies could afford to supply in earlier days. For a specific example, in two large states 10 years ago only 6 per cent of the total welfare dollars was spent on medical care. Today the proportion is 35 per cent, and welfare directors of these states estimate that in another 10 years the proportion will rise to 50 per cent. The explanation is this: security and retirement programs, public and private, are underwriting the public's income to such an extent that the share of public assistance money that can be set aside specifically for medical care is growing at a rapid rate. This is evidence that the public assistance programs are increasingly directed toward the benefit of the aged, the sick, and the disabled.

Veterans Administration Cuts Paper Work For Local Physicians

In an attempt to reduce the paper work for home town physicians who are treating veterans with service-connected disabilities, the Veterans Administration is in the process of placing in effect a new long term treatment program. It is designed to furnish eligible veterans medical care by their home town physicians and at the same time reduce the amount of paper work required on the part of the physician.

The program also will reduce the amount of paper work required by the Veterans Administration. The type of cases to be placed on the long term procedure program are those requiring professional and ancillary services on a recurring basis that can be forecast within reasonable limits and in which the patient has demonstrated his willingness to cooperate with the home town physician and the Veterans Administration by keeping his appointments with the physician.

The chief medical officer for each Veterans Administration regional office will review the files of patients under current treatment, and those cases that will require substantially the same medical care each month over a long period of time will be discussed with the physician to secure an estimate of recurring monthly services. The estimate has been termed "the monthly treatment base."

When the proper monthly treatment base has been reviewed and approved by the chief medical officer, only one authorization will be issued to the home town physician. This will be the authority for the physician to give treatment on this basis for the remainder of the fiscal year, which will be from the date of issuance through June 30. The home town physician need not make further requests for treatment as long as the veteran remains on this program.

In the event a veteran's condition is improved to the extent that he will require less treatment, or if he should become worse and require more treatment, the local doctor will advise the chief medical officer of these facts and make his recommendation as to the adjusted monthly level of treatment that the patient will need. If a patient does not report for treatment as instructed, his doctor can notify the regional

office and the patient will be withdrawn from the long term treatment program.

Some of the advantages of this new program are:

1. Annual authorization will be issued automatically without the necessity of the physician requesting treatment each month.

2. Reports of treatment can be submitted once every 90 days rather than each month as was required previously.

3. The physician may submit his bill on his regular letterhead stationery just as he does with his private patients and without giving minute details and entries formerly required in billing on the Veterans Administration's forms.

PERSONALS

Dr. Don Chapman, Dr. Vincent P. Collins, and *Dr. Jack Abbott,* Houston, and *Dr. Robert M. Moore,* Galveston, gave papers and participated in a panel discussion for the Southwest Louisiana Graduate Medical Assembly in Lake Charles September 13-14.

Dr. Arild E. Hansen, Galveston, gave the Borden award presentation at the twenty-sixth annual meeting of the American Academy of Pediatrics October 5-10 in Chicago; his topic was "Essential Fatty Acids in Infant Nutrition."

Dr. William F. Guerriero, Dallas, spoke on "External Endometriosis" and "Newer Aspects in the Management and Diagnosis of Carcinoma of Female Genitalia" at the October 8-10 assembly of the Louisiana Academy of General Practice. *Dr. E. S. McLarty,* Galveston, was a luncheon speaker on "The Medical Student and the Preceptorship."

Dr. William Crawford, Fort Worth, represented the Harveian Society of London when he placed a wreath at the statue of William Harvey, discoverer of the circulation of blood, during the recent meeting in Chicago of the International College of Surgeons.

David, 10 year old son of *Dr. and Mrs. Dolph Curb,* Houston, died September 15.

Dr. J. J. Crume, Amarillo, a cousin of Abraham Lincoln, celebrated his ninetieth birthday September 9. In practice in Amarillo from 1908 until 1950 (before that in Clio, Gorman, and Rising Star), he is an honorary member of the Potter County Medical Society, Texas Medical Association, and American Medical Association.

Dr. and Mrs. E. W. Coyle, San Antonio, became grandparents twice in September. John William, third son of Mr. and Mrs. Lane T. Sealy of San Antonio, arrived September 22. Anita Helen, daughter of *Dr. and Mrs. J. E. Coyle,* who are in Fort Worth while Dr. Coyle is in the Air Force, was born September 27.

Recent arrivals include girls for *Dr. and Mrs. Ben F. Mitchel, Dr. and Mrs. Harold M. Mims, Dr. and Mrs. Donald A. Corgill,* and *Dr. and Mrs. A. C. Henry, Jr.,* all of Dallas, and boys for *Dr. and Mrs. Charles M. Sloan, Dr. and Mrs. Dan R. Sutherland, Dr. and Mrs. Joseph C. Ogle, Dr. and Mrs. E. R. Cox,* and *Dr. and Mrs. Kenneth Foree,* all of Dallas.

Twin boys were born to *Dr. and Mrs. A. Wilson Harrison,* Galveston, in August. A boy was born to *Dr. and Mrs. John H. Cochrane,* Galveston, in August.

Dr. and Mrs. Thomas O. Shindler, Houston, are parents of a boy born September 11.

Cerebral Palsy Offices To Be in Austin

The home offices of United Cerebral Palsy of Texas soon will be moved from Dallas to Austin. Lee Proedoehl, Green Bay, Wis., is the newly appointed executive director of the organization, and Dr. Ralph Hanna, Austin, is the president of the executive board.

AUTOMOTIVE CRASH STUDY EXTENDED

On November 1, seven Texas counties—Gregg, Brazos, Ector, Midland, Potter, Tom Green, and Navarro—will inaugurate a new area of the Texas-Cornell Automotive Crash Injury Research program. This study will involve reporting of all 1956, 1957, and 1958 cars involved in accidents, both injury-producing and noninjury-producing. At the same time, Tarrant, Grayson, and Taylor Counties will replace the currently active areas (Wichita, Nueces, and Lubbock Counties) in a continuing study of injury-producing accidents in cars of all years of manufacture.

Automotive Crash Injury Research was initiated in 1953 by Cornell University Medical College to identify those items in passenger cars which are causing injury or death to occupants of cars involved in accidents. Prior to the initiation of this research program causes of *accidents* were thoroughly investigated whereas causes of *injuries* were ignored. Since November 1, 1955, the Texas Medical Association, the Texas State Department of Health, and the Texas Highway Patrol have cooperated with Cornell in this attempt to fill this gap in knowledge and to reduce the enormous toll taken yearly in lives and injuries by highway automobile accidents.

Data from Texas and other cooperating states have formed a basis by which automotive manufacturers have already made important design changes specifically engineered to provide protection during accidents, such as seat belts, spring-proof door latches, energy-absorbing steering wheels, and padding. In addition these data are producing statistics which promise to implement medical treatment of crash victims through more definitive knowledge of the nature and scope of the problem.

Texas physicians in the areas covered by the study are invited to record information on the nature and extent of all injuries on the brief medical form provided by Cornell. This medical information and accident data supplied by state troopers are analyzed by Cornell.

The continued effectiveness of these studies depends on the careful recording of injuries by the individual physicians in the areas under study, stated Dr. Denton Kerr, President of the Texas Medical Association. He has written each doctor in the 10 Texas counties which will come under the study on November 1 and asked "earnest participation in this attack on one of the nation's foremost epidemiological problems."

ULTRASONIC TESTING FOR FRACTURES

Concrete slabs and blocks occasionally have caused fractured bones, but that is not the reason researchers at the Hines, Ill., Veterans Administration hospital became interested in the concrete business.

The concrete industry employs an ultrasonic method of testing the quality of concrete slabs and blocks. Study of the method helped a research group at the Hines hospital in development of a technique utilizing ultrasonic waves which test the extent of bone fractures and the degree to which they may have healed.

Preliminary studies have shown that this technique offers an objective and accurate method of analyzing the degree of healing, helping in the reduction of bed stay for hospitalized veterans, the Veterans Administration reported.

The device used in the technique is essentially a low energy, ultrasonic transmitter which sends its waves down the extremity of the patient. A receiver at the opposite end of the extremity records the length of time that it has taken for the pulse to go down the extremity. The change, or variation in the time, is an indication of the degree of fracture healing.

This method analyzes the degree of healing of a fracture by the measurement of sound velocity across a fracture site compared to that of the opposite normal extremity.

The measurements have proved to be a valuable adjunct to roentgen ray and clinical examination in fracture cases, according to the Veterans Administration.

The project was developed at the radioisotope and the orthopedic departments of the Hines hospital by Dr. George T. Anast and Dr. Irwin M. Siegel, with Theodore Fields, M.S., physicist in the hospital's radioisotope service.

Diathermy Machines Can Cause Disasters

Illegal use of diathermy machines presents a serious threat to communications, according to the July *Popular Electronics.* The machine often produces signals which interfere with police and radio transmitters, airplane landing communications, and radar screens used by airports to prevent midair collisions. Such interference has had tragic results; in 1954 a Chicago housewife's rented diathermy machine jammed radio police calls and enabled the murderer of a bank guard to escape with more than $10,000. The same year, machines interfered with instrument landing signals and caused the crash of at least one large airliner. The Federal Communications Commission, as far back as 1947, restricted diathermy machines to two frequencies, and allowed owners six years to change over. But early 1957 saw more than 10,000 machines still operating on illegal frequencies.

VAN METER AWARD

The best essays concerning original work on problems related to the thyroid gland will be considered for the American Goiter Association's annual Van Meter Prize of $300 and two honorable mentions. Either clinical or research investigations may be included; the papers may not exceed 3,000 words and must be sent to Dr. John C. McClintock, 149½ Washington Avenue, Albany 10, N. Y., not later than February 1.

MEDICAL MEETING LIST TO BE DISTRIBUTED

A new service to physicians and dentists of Texas through a published booklet listing medical and dental meetings and lectures, entitled "WHAT GOES ON," will be given by the University of Texas Postgraduate School of Medicine in Houston. Hospitals, medical societies, specialty societies, and medical schools are asked to contribute listings of their meetings. The first issue will cover the period from January 15 to February 15, 1958.

Deadline for submitting material will be the fifteenth of the month of publication. Correspondence should be directed to *"What Goes On,"* 410 Jesse Jones Library Building, Texas Medical Center, Houston 25.

CADAVER SHORTAGE A PROBLEM

To relieve the increasing shortage of cadavers threatening the quality of medical education in the United States, a committee of the National Society for Medical Research has proposed a six-part program.

"A majority of medical colleges report that they are unable to obtain enough bodies to teach student doctors efficiently," said Dr. Oliver P. Jones, head of the anatomy department at University of Buffalo Medical School and chairman of the committee. "Some schools have been forced to drop such important courses as surgical anatomy."

A survey of public opinion toward anatomical studies in which a depth-interview study will discover underlying sentiments has been proposed by the committee.

"Changing times, plus outmoded laws and ancient prejudices mean increasing trouble for the anatomy departments of many of America's medical colleges," said Dr. Jones. He explained that the University of Buffalo operated its anatomy department last year with 23 cadavers short of adequate instruction, and that the faculty was not able to give anatomical instruction to nurses and people in the public health fields.

American Board of Obstetrics and Gynecology

The Part I examinations of the American Board of Obstetrics and Gynecology will be held January 2, 1958, in various sections of the United States. Candidates notified of their eligibility to participate in these examinations must submit their case abstracts within 30 days of notification.

Allergy Care Largely Neglected

"Supposing we had a super-large city big enough to contain all of the people in New York, Chicago, Los Angeles, San Francisco, Denver, Omaha, Miami, and Syracuse. Supposing further that every one of the men, women, and children there suffered a peculiar illness. . . . Millions were continually suffering from stuffy, runny, sneezy noses, often losing sleep and being absent from work. Supposing that three million in this city, a large percentage of whom were children, were having spells of choking and difficulty in breathing, in some cases continuously. . . . Hundreds of thousands were suffering from drug allergy—hives, rashes, asthma, and even more serious changes in vital organs."

"These and many others would be the affliction of all such people in this hypothetical city of 17 million. This is the estimate of the number of people in the United States who have allergy."

Such is the introduction to a new pamphlet "Allergy—A Story of Millions," produced jointly by the Committee on Public Education of the American Foundation for Allergic Diseases and the Public Affairs Committee. The pamphlet describes the various kinds of allergies—asthma, hay fever, hives, eczema, and others. It describes the specific causes of the different allergies, and tells how they are diagnosed and treated. Copies can be obtained for 25 cents each from the Public Affairs Committee, 22 East 38th Street, New York.

Companionship Therapy Is Tested

Companionship therapy is playing an increasingly important part in "cracking the loneliness barrier" that hinders recovery of the mentally ill, the Veterans Administration reports. Some carefully chosen volunteers are serving as regular companions for patients who have no relatives to visit them. They are encouraged to become close friends, and sometimes patients are given passes from the hospital to visit and learn about the outside world. Development of mental hygiene societies and communitywide mental hygiene clinics has been the outcome of the program in some instances. In others, young people are encouraged to enter the health field, especially social service.

Hospital Ethics Revised

A new revised code of ethics for hospitals and hospital administrators has been released by the American Hospital Association and the American College of Hospital Administrators. It consists of a 10 point statement on hospital ethics and a 10 point statement of principles of conduct for hospital administrators. By following these principles, says the statement introductory to the principles, the hospital will be better able to perform its function in a manner that will merit and receive the endorsement and support of the community it serves.

Texas Hospitol Accreditotion Institute

A Texas Hospital Accreditation Institute, given through the cooperation of the Texas Hospital Association, Private Clinics and Hospitals Association, and Texas Medical Association, will be held in Austin February 20-22. Representatives of all hospitals in the state which are not accredited by the Joint Commission on Accreditation of Hospitals will be eligible to attend. Details are being completed, and full information may be obtained by writing to O. Ray Hurst, Executive Secretary, Texas Hospital Association, 2208 North Main, Dallas.

Journal on Arthritis ond Rheumotism

The American Rheumatism Association soon will begin publication of a new medical journal, *Arthritis and Rheumatism, The Official Journal of the American Rheumatism Association.* Publishers will be Grune & Stratton, Inc., New York. Dr. William S. Clark will be editor.

MEDICAL MEETINGS

World Medical Assembly Held

The annual eleventh General Assembly of the World Medical Association has just been completed in Istanbul, Turkey, and the association is looking forward to the next assembly to be held August 15-20, 1958, in Copenhagen, Denmark. A second World Conference on Medical Education is being planned for 1959 in the United States.

At its meeting in June, the American Medical Association adopted a resolution in support of the World Medical Association and recommending that every member of the AMA join the United States Committee of the World Medical Association. A benefit of membership in the United States Committee is the privilege of attending the annual assemblies of the World Medical Association as an official observer.

The worldwide group has become a strong factor in protecting and promoting the professional interests of the medical profession and the cause of world peace. Now in its tenth year, it is a federation of the most representative national medical association in each of 53 nations, and more than 700,000 physicians are members.

Every individual physician in the United States is eligible for membership and dues are $10 per year. Physicians who desire membership may write Dr. William M. Crawford, 612 Sixth Avenue, Fort Worth, who is state chairman for the World Medical Association.

Americon College of Physicions To Meet in Puerto Rico

The seventh regional meeting of the American College of physicians will be held in San Juan, Puerto Rico, October 25-26, with Dr. Charles A. Doan, Columbus, Ohio, second vice-president of the College, serving as official representative and guest speaker. All physicians, interns, and residents are welcome.

Registration begins Friday evening, October 25, and the program opens with greetings from Dr. F. Hernandez-Morales, governor for Puerto Rico of the college. Scientific papers will be presented Friday evening and all day Saturday primarily by Puerto Rican members of the college at the auditorium of the Puerto Rico Medical Association. The meeting will conclude with cocktails and dinner Saturday evening.

Presiding over the various sessions will be Dr. Arturo L. Carrion, San Juan; Dr. Oscar G. Costa-Mandry, Santurce; and Dr. Rafael Rodriguez-Molina, San Juan.

The Texas Geriatrics Society will meet concurrently in San Juan, and visitors are welcome.

MELANOMA CONFERENCE

The clinical conference on melanoma, sponsored by the University of Texas M. D. Anderson Hospital and Tumor Institute and Postgraduate School of Medicine, will be held November 13 in Houston. Topics will be "Etiological Factors Generally Considered to be Associated with the Development of Melanoma," "Role of Complexion and Race on the Incidence of Pigmented Moles and Melanoma," "Primary Lesion," "Secondary Lesion," "Diagnostic Problems," "Recurrence of Pigmented Nevi After Incomplete Removal," "Surgical Management of Melanoma of the Head and Neck," "Results of Radical Node Dissections of the Trunk in Metastatic Melanoma," "Chemotherapy in Disseminated Disease," and "End Results of Treatment of Patients with Malignant Melanoma."

Dr. Arthur C. Allen, Miami; Dr. Thomas B. Fitzpatrick, Portland, Ore.; Dr. George T. Pack, New York; Dr. Herman Pinkus, Detroit; and Dr. R. J. Schoenfeld, Detroit, plus members of the M. D. Anderson staff, will lead the discussion.

Members of the Academy of General Practice desiring credit for the conference must register in advance with the Postgraduate School of Medicine.

Immediately following this conference will be the Fourth Conference on the Biology of Normal and Atypical Pigment Cell Growth.

World Congress of Gastroenterology

The World Congress of Gastroenterology will meet May 25-31 in Washington, D. C. Diseases for discussion have been chosen because of variations in epidemiology and clinical behavior in various parts of the world. Physicians and scientists, purposely selected from countries where these differences are known to exist, will analyze these variations. Dr. H. M. Pollard, University Hospital, Ann Arbor, Mich., can supply full details of the meeting.

Britisher Addresses Houston Group

Dr. Martin Bodian, London, spoke to the Houston Chapter of the National Cystic Fibrosis Research Foundation at the Texas Children's Hospital October 7.

Ophthalmologists Plan Cruise Congress

The Pan American Association of Ophthalmology will hold its second cruise congress February 1-14. The itinerary includes a day each in San Juan, Puerto Rico; Ciudad Trujillo, Dominican Republic; Kingston, Jamaica; Port-au-Prince, Haiti; and Nassau.

Dr. James H. Allen, New Orleans, is chairman of the program committee, which is arranging symposiums, free papers, motion pictures, seminars, and exhibits. Meetings will be held on shipboard, and there will be opportunities to visit hospitals and to meet the staffs of medical schools in the islands.

Fundamental Cancer Research

The twelfth annual Symposium on Fundamental Cancer Research will be held March 6, 7, and 8, 1958, at the University of Texas M. D. Anderson Hospital and Tumor Institute, Houston.

The topic for the symposium will be "Radiation Biology and Cancer," with the staff at M. D. Anderson Hospital giving general papers the first day and the final two days consisting of papers presented by other recognized authorities in radiation research.

Chairmen for the radiation biology sessions include Titus C. Evans, Radiation Research Laboratory, University of Iowa College of Medicine, Iowa City; Dr. Jacob Furth, Pathology Department, Children's Cancer Research Foundation, Inc., Boston; and Dr. Henry S. Kaplan, Radiology Department, Stanford University Medical School, San Francisco. General chairman of the symposium is Warren K. Sinclair, chief physicist at the University of Texas M. D. Anderson Hospital and Tumor Institute.

Swedish Doctor to Speak

Dr. Hans Ludwig Kottmeier, Radiumhemmet, Stockholm, Sweden, will be the guest of the Houston Radiological Society and the Houston Gynecological and Obstetrical Society October 28 when he lectures on "Treatment of Ovarian Cancer." While in Houston, Dr. Kottmeier will stay with Dr. Gilbert H. Fletcher of the University of Texas M. D. Anderson Hospital and Tumor Institute.

MEDICOLEGAL NOTES

Surgeons Are Liable For Faulty Sponge Counts

Undoubtedly, one of the more frequent causes of malpractice threats or suits arising out of surgical procedures involves sponges being left in the patient. These cases give rise, for the most part, to three legal points.

The first deals with the liability of the physician for the injuries resulting from a sponge being left in the patient. A case very much in point is Thompson v. Barnard.* The facts in this case disclose that in 1930, the patient was operated on, and from that date until a second operation some 5 years later, she had endured continuous pain and suffering. The second operation revealed pieces of gauze sponges in her intestines. As to the liability of the physician who had failed to remove these sponges during the operation, the court made this statement:

> While there are decisions to the contrary, the apparent weight of authority is that a surgeon's failure to remove a sponge before closing the incision is negligence as a matter of law.

The effect of this holding by the court as to the liability of the surgeon when it stated that this was "negligence as a matter of law" put the operating surgeon in a position where liability is almost certain. This is due to the fact that when such is the case, all that the injured patient would have to show to establish negligence on the part of the physician is that the sponge had not been removed. The court, in effect, is saying that there is no excuse for leaving a sponge or sponges in a patient, and if such incident does occur, then the operating surgeon will be held liable for any resulting injury to the patient.

The next point which frequently arises in the "sponge" cases deals with the statute of limitations. The statute of limitations in Texas in malpractice cases is 2 years. This means that a patient who has been injured has a period of 2 years from the time of the alleged negligent act to bring a suit to recover for the injuries suffered. If such action is not brought within this 2 year period, then the patient is barred from bringing this action even though the claim may have been meritorious. This question of when the statute of limitations begins to run in "sponge" cases is often very important because of the fact that it may be some time before it is actually discovered that a sponge has been left in the patient. It has been argued in several cases that the statute of limitations should not begin to run in a case of this nature until the patient knew or should have known that a sponge had not been removed. The courts, though, have overruled this line of reasoning, and it was very clearly pointed out by the court in Thompson v. Barnard, supra, when it said:

> As a general rule, the statute of limitations commences to run upon a cause of action for tort from the time the duty owing to plaintiff is breached by the wrongful or negligent act of the defendant, even though in some cases the plaintiff is ignorant of the existence of his cause of action, or although damages were not sustained until after the commission of the tort. . . . Generally speaking, in the absence of fraud, the plaintiff's ignorance or inability to learn of his cause of action will not prevent the statute of limitations from running.

Therefore, it can be seen from the holding in this case that the patient has 2 years from the date of the alleged negligent act in which to sue, and unless fraud can be shown, the patient would be barred after that length of time from commencing his action.

The third point which is often raised deals with fraudulent concealment. Normally, this will arise only when the patient has not discovered the presence of the sponge until after the statute of limitations has run and he would not normally be able to commence the suit. Fraud is an exception to the statute of limitations, and if the injured party can show that he was prevented from bringing his suit within a 2 year period of time, not because of his lack of diligence, but because the surgeon fraudulently concealed the facts, then the patient may well be able to proceed with a suit even after the 2 year period has expired.

A case dealing with this point is Carrell v. Denton.† This was also a "sponge" case, and the facts show that the patient did not discover until some 5 years later that a sponge had not been removed. The physician relied upon the defense that the suit was barred because of the statute of limitations. The patient then insisted that the suit had not been brought within the proper length of time owing to the fraudulent

*142 S.W. (2d) 238.

†157 S.W. (2d) 878.

concealment of the facts by the surgeon. The court, in holding that there had been no fraudulent concealment on the part of the physician held that:

> In conducting a surgical operation on his patient, and in respect to any treatment he may administer, a surgeon is under the duty to exercise due care. His failure to discharge this duty constitutes negligence and therefore is wrongful—but the failure does not, of itself, constitute fraud or expose the surgeon to the imputation of fraudulent concealment. Among other essential ingredients, a fraudulent concealment in cases of this sort includes, first, actual knowledge of the fact that a wrong has occurred and, second, a fixed purpose to conceal the wrong from the patient.

To summarize briefly the effect of these two cases, it should be pointed out that in "sponge" cases, there is little or no defense for the physician should a lawsuit arise, unless it can be shown that the sponge was left in the patient for an express reason (such as to stop bleeding and to be subsequently removed). Also, the patient must bring his action for any alleged injuries, and this would apply in all malpractice cases, within a period of 2 years from the date of the alleged negligent act, unless he can prove that fraudulent concealment on the part of the physician has prohibited him from so doing.

—PHILIP R. OVERTON, LL.B.

EDUCATION

Austin Arranges Hospital Course For High School Students

Austin high school students between 16 and 21 years of age who have satisfactory grades have the opportunity to enroll in a new course, "Introduction to Hospital Sciences." Courses are being conducted in Brackenridge and Seton Hospitals, and are designed to give young people an understanding of these fields and to make future study easier and more interesting. During the junior year, a survey course of hospitals and services is taught. It covers 28 fields from ethics and history to the organization of each department and service. Following this, the student is rotated through 10 hospital departments in orientation to patient care, spending three weeks in each department. The senior year is devoted to advance training in one specialized field of patient care according to the interests and abilities of each student and under the direction of the department head.

Sister Kenny Foundation

Postdoctoral scholarships in the field of neuromuscular diseases are available through the Sister Elizabeth Kenny Foundation; they are designed for scientists at or near the end of their fellowship training in basic or clinical fields. Each grant provides from $5,000 to $7,000 a year for a 5 year period, and candidates from American and Canadian medical schools are eligible. Inquiries may be directed to Dr. E. J. Huenekens, Medical Director, Sister Elizabeth Kenny Foundation, 2400 Foshay Tower, Minneapolis 2.

MEDICAL BRANCH FACULTY NOTES

Several new members of the University of Texas Medical Branch faculty have been announced recently. Dr. Sam Schulman, formerly of Boston University, and Dr. Norman G. Hawkins, University of Washington, Seattle, have joined the faculty of the Department of Preventive Medicine and Public Health in Galveston. Dr. John R. Derrick has been named assistant professor of thoracic surgery. Dr. William Harlan, University of Indiana, has an appointment in neurology. Dr. Charles Powell is instructor in obstetrics and gynecology. Dr. Bruce E. Walker, McGill University, Montreal, is assistant for fiscal affairs for Medical Branch hospitals.

Dr. Robert M. Moore, chairman of the Department of Surgery, has been appointed to the Conference Committee for Graduate Training in Surgery by the Council on Medical Education and Hospitals of the American Medical Association.

Dr. William C. Levin is in New York for the period from September 29 to October 27 to take part in conferences at the Memorial Center for Cancer and Allied Diseases.

Fellowships in Allergic Diseases

Young doctors interested in furthering their knowledge of allergy may apply for postdoctoral fellowship sponsored by the American Foundation for Allergic Diseases. Graduates of approved medical schools who have completed 1 or 2 years of graduate training required as preliminary certification by the Boards of Internal Medicine and Pediatrics are eligible. Requests for information and applications may be sent to Dr. Colin M. McLeod, 820 Maloney Clinic, Thirty-Sixth and Spruce Streets, Philadelphia 4. December 15 is the deadline for applications to be filed.

University of Texas

During 1955-1956, component units of the University of Texas received nongovernmental gifts and grants as follows: Medical Branch, $812,059; Southwestern Medical School, $375,253; M. D. Anderson Hospital and Tumor Institute, $368,340; Postgraduate School of Medicine, $38,950; and Dental Branch, $3,674. Also, a half million dollar William Buchanan Foundation grant was made for medical education and research with the recommendation that it be used largely at Southwestern Medical School, but it was not restricted to that institution.

MEMORIAL LIBRARY

MEDICAL ECONOMICS BIBLIOGRAPHIES

IV. Partnerships

Since partnership practice is on the increase, the whys and wherefores should be examined by those desirous of this type of practice. The following references should be helpful in that they discuss the advantages, disadvantages,

**This is the last of a series of four bibliographies on medical economics which are being published in the* Journal. *Topics are investments, insurance, fees, and partnerships.*

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Dr. Otto Brandt, Jr., Austin, 12 journals.
Dr. Henry L. Hilgartner, Austin, 22 journals.
Dr. J. E. Johnson, Austin, 5 journals; 9 reprints.
Dr. S. N. Key, Jr., Austin, 4 journals.
Dr. John Roberts Phillips, Houston, 2 journals.
Dr. Nelson L. Schiller, Austin, 32 journals; Pamphlets and reprints.
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BOOK NOTES

Roentgen Signs in Clinical Diagnosis

ISADORE MESCHAN, M.D., Professor and Director of the Department of Radiology at the Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N. C.; with the assistance of R. M. F. Farrer-Meschan, M.B., B.S., Melbourne, Australia. 1058 pages. 2216 illustrations on 780 figures. $20. Philadelphia, W. B. Saunders Company, 1956.

This book is written primarily for medical students, residents in radiology, and practicing physicians other than radiologists.

The most remarkable and useful feature of the book is the arrangement of the material by which the student is introduced to the objective method of radiographic analysis.

The book is divided into sections based on anatomical regions. Each section contains a differential diagnosis based on the radiographic abnormalities found in the region of body under discussion including a list of diseases which can cause the radiographic abnormalities seen on the film. Every listed disease is then described both from a radiographic and clinical standpoint in the text and illustrations.

By using this system of differential diagnosis, the student can start with the radiograph and analyze it objectively as to radiographic abnormality. Then by looking up this abnormality in the outline, he can find the list of diseases which can produce the radiographic pathology he has seen on the film. After correlation of clinical findings with these objective radiographic findings, a diagnosis of the patient's disease may be made or at least a small number of possibilities will remain in the differential diagnosis. This type of objective approach allows the student to analyze an x-ray film with reasonable assurance before having become familiar with all of the radiographic vagaries of all diseases affecting a given region.

This book should be recommended to serious students who are particularly interested in clinical radiology. Because of the unusual arrangement of the material, this should be in the library of every practitioner of medicine who occasionally interprets radiographs. Reviewing this book has been a pleasure because of the attractive make-up, the good paper, the large readable print, and the excellence of the illustrations.

—Gordon L. Black, M.D., El Paso.

Ultramicro Methods for Clinical Laboratories

EDWIN M. KNIGHTS, JR., M.D., Associate Pathologist, Director of Clinical Pathology and Blood Bank; RODERICK P. MACDONALD, Ph.D., Director of Clinical Chemistry and Research Advisor; JAAN PLOOMPUU, Chief, Division of Ultramicro Chemistry and Research Associate; all of Harper Hospital, Detroit. 128 pages. $4.75. New York, Grune & Stratton, 1957.

This small volume represents a tremendous amount of detailed information not readily available in any other text known to the reviewer. Perhaps for the first time readers can adjust themselves to the fact that so-called ultramicro methods are not the usual macro methods performed on a "cut down" basis. The authors repeatedly point out entirely new techniques now defined as ultramicro methods. All determinations are reported in micrograms or microliters. All studies are performed on serum. This necessitates only the pricking of the heel or finger for 0.3 ml. of blood, which the authors state is sufficient for "a fairly complete survey." These methods are based on titrimetric, colorimetric, and gasometric techniques, which are adaptable to minute quantities of cerebrospinal fluid.

Recommendations are made concerning equipment, and although these recommendations are made in detail they are modest. The authors emphasize the need for a separate corner where this division of clinical chemistry can be set up and where one or more technologists can devote all or most of their time to this. It is strongly recommended that care of glassware and instruments be solely under the care of the technologist doing the work of ultramicro chemistry and that ultramicro procedures be used routinely so that the technologist always may be versed in the procedures and readily available. There is a special discussion of equipment with particular reference to pipetting which is among the best presented within the knowledge of the reviewer.

The reviewer is not quite clear why the authors recommend the Baird flame photometer over other models, but it should be noted that other flame photometers may be used. This is the only point in which the authors can be accused of being somewhat arbitrary.

The authors are also insistent that flame photometry determinations for calcium are inaccurate due to high flame temperatures and high photodetector sensitivity. They prefer the titrimetric method. In the reviewer's laboratory we have found the colorimetric method of calcium determination by macro methods to be satisfactory although time consuming. We presently are using flame photometry and are achieving rapid determinations which we believe to be reproducible. We have not used the indicator, eriochrome black T, recommended by the authors, which they state gives a sharp end point. This may well be a definite advance in an otherwise difficult procedure.

Constantly the authors are emphasizing the need for controlled studies, pointing out where known controls can be obtained for comparison.

The organization of the book is excellent with quick references made possible by division into 21 chapters. A number of excellent photographs accompany the discussion, and a fine bibliography is presented. Somewhat disappointing to the reviewer is the lack of any procedure for toxicological work; it is hoped that such procedures may be included later. The all important sedimentation rate is not included in ultramicro methods.

The authors have presented a monograph which may be monumental in directing the attention of clinical laboratory directors and technologists toward ultramicro methods, especially in children's hospitals and in those cases in which for a variety of reasons only small amounts of spinal fluid is available or in which it is virtually impossible or at least embarrassing to obtain adequate amounts of blood by venipuncture. The book insists, however, that ultramicro procedures should be used routinely as much as possible, if the size and nature of the hospital permit it.

The book is to be highly recommended to all clinical pathologists and all those working in the field of clinical chemistry.

—Jarrett E. Williams, M.D., Abilene.

Experimental Psychology and Other Essays

I. P. PAVLOV. 653 pages. $7.50. New York, Philosophical Library, 1957.

The Road to Inner Freedom

BARUCH SPINOZ. Edited and with an Introduction by Dagobert D. Runes. 215 pages. $3. New York, Philosophical Library, 1957.

The Practice of Medicine

Editor, JONATHAN CAMPBELL MEAKINS, M.D., L.L.D., D.Sc. ed. 6. 1916 pages, 318 illustrations including 4 in color. $16. St. Louis, C. V. Mosby Company, 1956.

Dr. Meakins has gathered together a brilliant array of physicians, allowing each to expound on the field of medicine as it applies to his specialty in modern times. As those who have used his previous editions will testify, this author has a peculiar ability to assemble a great amount of factual material in a compact, readable, and usable form.

The text is divided into appropriate sections, relating to infectious diseases of various nature, chemotherapy, allergic states, and diseases peculiar to the various systems of the body including an excellent section on neurological diseases and a new chapter on the psychosomatic aspects of medicine.

This is an outstanding work as far as text is concerned and is further clarified by excellent illustrations.

—M. K. Patteson, M.D., Lampasas.

The Patient Speaks; Mather Stary Verbatim In Psychoanalysis of Allergic Illness

HAROLD A. ABRAMSON, M.D., Associate Attending Physician and Chief of the Allergy Clinic, Mount Sinai Hospital, New York; Research Psychiatrist, Biological Laboratory, Cold Spring Harbor; Assistant Clinical Professor of Physiology, Columbia University. 239 pages. $3.50. Washington, Vantage Press, 1956.

Dr. Abramson has condensed the essential features of complete and successful psychoanalytic treatment of a 32 year old woman who had suffered eczema and asthma since infancy. Unique is the fact that the significant selections are reproduced verbatim, having been selected from tape recordings made during 300 or more analytic sessions over a period of several years.

The author's objective in preparing this treatise has been to present the picture of "the engulfing parent" which he denominates the "Cronus complex" after the Greek mythological figure of Cronus, ruler of the universe, who attempted to perpetuate his power by the expedient of swallowing his sons as they were born. The author has added, in brackets, minimal comments addressed to the reader which will be helpful to the nonpsychiatric seeker after a better understanding of the psychoanalytic method. It is to be hoped that this work will be widely read by physicians since it affords a concise and thoroughly readable delineation of psychosomatic relationships.

Dr. Abramson also makes a strong plea for improvement in the field of communications where psychotherapy is concerned, in order that evaluation of methods and results may be more accurately accomplished. It is to this end that he departs from the strictly orthodox analytic procedure in his use of recorded interviews. He also uses light hypnosis on occasion, another variation from the orthodox. It is not surprising that the author in a sense has flouted tradition when his interests, as noted in his affiliations, cover such a wide variety of allied fields.

—William B. Cline, Jr., M.D., Corpus Christi.

Epilepsy; Grand Mal, Petit Mal, Convulsions

LETITIA FAIRFIELD, C.B.E., M.D., D.P.H. 159 pages. $4.75. New York, Philosophical Library, 1957.

This small book summarizes for the public what is known about the various forms of epilepsy, what treatments are available, what special problems are presented by the disease in children, and what employments the epileptic can expect to find for himself in the world. To assist doctors and social workers, the author has included a questionnaire which answers simply the most frequent questions asked by those coming new to the disease. The book will be a help to epileptics in getting their troubles in the proper perspective and will give confidence to those who deal with epileptics in the family circle, in factory or office.

A Visit to the Hospital

Written by FRANCINE CHASE, Pictures by James Bama. Prepared under the supervision of Lester L. Coleman, M.D., with an introduction by Flanders Dunbar, M.D. 68 pages. $1.50. New York, Grosset & Dunlap, 1957.

Some Milestones in the History of Hematology

CAMILLE DREYFUS, M.D., with a foreword by Sir Lionel E. H. Whitby, Regius Professor of Physic, Cambridge University. 87 pages. $4.50. New York, Grune & Stratton, 1957.

The type and format of this small book are legible and the general outline is appealing. A forward by Lionel Whitby is very brief. A wealth of information on the historical aspects of hematology is included.

The book is divided into four sections, including the early history of leukemia, chronic hemolytic jaundice, and polycythemia vera, and 43 pages entitled "A Glance at the History of the Blood." If the book can be entitled "Milestones," this section should be entitled "Pebbles." It consists almost entirely of one sentence historical facts, and appears rather unconnected.

On the whole the book is well done and should be of interest to those intent upon the history of medicine. The last section, devoted to the life of Georges Hayem, is a brief outline surprisingly complete of his scientific achievements. The contributions in various fields of this inspired discoverer and brilliant teacher demonstrate what intellect and industry can achieve through the proper use of scientific instruments. This section is recommended for all students of medicine.

—Norris A. Wimberly, Jr., M.D., Tyler.

Cancise Anatamy

LINDEN F. EDWARDS, Ph.D., Professor of Anatomy, Ohio State University. ed. 2. 502 pages. $7.50. New York, McGraw-Hill Book Company, 1956.

The organization of this book is interesting, for it is a concise anatomy just as the title indicates. "Part I, General Anatomy" is preceded by an introduction which goes into definitions of anatomy and its subdivisions, planes, surfaces, directions, and terminology. It also takes up the parts of the human body, physical and constitutional types, and the relationship of animal and human species. Reference is made to maladjustments of the human body to erect posture and the sexual and embryological aspects of development.

In "General Anatomy" more specific divisions are taken up such as microscopic anatomy, body organization, embryology, and cytology. General osteology includes all of these plus a study of the periosteum, blood supply, and chemical, architectural, and physical properties of bone and cartilage. Applied anatomy is also stressed. The lack of radiological help in teaching anatomy is a disappointing thing to a radiologist. It is in the reviewer's opinion a real shortcoming that radiological anatomy is not included. Any anatomy book now presented which does not recognize radiological anatomy as an integral part of its presentation is not keeping up with medicine as it is being practiced all over the world. It is also a glaring deficiency in our interns as they come from medical school that their knowledge of living radiological anatomy is so deficient.

The illustrations are well done and timely, and the discussion is orderly and concise. The author is to be congratulated on the production of this text. It is recommended reading and as a reference work for the busy practitioner in that there is an abundance of information worked into a short text.

—Joe C. Rude, M.D., Austin.

Alcoholism; A Treatment Guide far General Practitioners

DONALD W. HEWITT, M.D. 112 pages. $3. Philadelphia, Lea & Febiger, 1957.

Alcoholism has become one of the leading public health problems confronting America today. It is a cause of growing concern among members of the medical profession, ministers, educators, and civic leaders. Dr. Hewitt bases his book on the results obtained in his work at the Charity Alcoholic

Rehabilitation Center, Los Angeles. This center is the largest of its kind in the western United States and treats an average of 100 alcoholics a month. He particularly stresses the need on the part of the physician of the confidence and cooperation of the patient's family and friends and attempts to show them and all others who come in contact with the patient how they can put themselves in a better position to aid him.

This is believed to be the first book of its kind intended primarily for the general practitioner to help him meet the widespread need for specific management, treatment, and follow-up therapy of alcoholism as it is encountered on all social levels.

Etiologic Factors in Renal Lithiasis

ARTHUR J. BUTT, M.D., F.A.C.S., compiled and edited. 401 pages. $12.50. Springfield, Ill., Charles C Thomas, Publisher, 1956.

Dr. Butt has divided the book into 18 chapters, each being written by a man who has done extensive research in the particular phase of the subject assigned to him. A historical survey of factors relating to renal lithiasis will be of general interest to every urologist.

There is an exposition on calcium and phosphorus metabolism, and the various stone types, calcium oxalate, urate cystine, and sulfonamide concretions, are discussed individually.

The chapter by F. E. B. Foley is well written and clearly sets forth the hydrodynamics of the urinary tract, which he understands so well. The principles stated in this monograph are worthy of review by every practicing urologist.

The role of infection in calculus formation is reviewed and Randall's plaques are discussed.

A summary of more recent research into changes occurring in the ground substance of the kidney and its relationship to stone formation is presented. Finally the role of colloids in the urine is described and observations as to the effect of hyaluronidase on this colloidal balance are presented.

No new or startling information is presented in this volume. However, it does summarize and document much of the material which has appeared in the literature over the past 10 years. The bibliography of each chapter provides a ready source of reference for those interested in reviewing further any particular phase of this broad subject.

—Roy R. Roberts, M.D., Plainview.

Medical Services for Rural Areas; The Tennessee Medical Foundation

WILLMAN A. MASSIE, Chairman, Health Committee, Council of the Southern Mountains; Formerly Field Secretary, The Tennessee Medical Foundation. 68 pages. Cambridge, Mass., published for the Commonwealth Fund by Harvard University Press, 1957.

Therapeutic Exercise for Body Alignment and Function

MARIAN WILLIAMS, Ph.D., Assistant Professor of Physical Therapy, Department of Allied Medical Sciences, School of Medicine, Stanford University, and CATHERINE WORTHINGHAM, Ph.D., Director of Professional Education, National Foundation for Infantile Paralysis. Exercise Illustrations by Harold Black. 127 pages. $3.50. Philadelphia, W. B. Saunders Company, 1957.

This manual is designed for the use of persons dealing with problems of body alignment and function. It should be of particular value to physical therapists and also to students and physicians interested in the teaching and practice of physical medicine. As the authors point out, the text is concerned with the selection and analysis of material related to body alignment rather than the introduction of new techniques. General principles of exercise and stretching are stressed in the manual while the number of specific exercises has been kept to a minimum.

The coverage of standing posture, analysis of body alignment, procedures used in posture evaluation, tests for muscle shortening, and positions of the body in activity and rest is simply presented and well illustrated. All of this information serves as an excellent guide in establishing and understanding the basic objectives for each patient so that the therapeutic exercise program may be suited to his individual needs. The exercises for the various parts of the body—that is, the low back, upper trunk and neck, and lower extremities —are fully described and illustrated.

A brief review of anatomical location and role of the primary muscles concerned in body alignment and function are illustrated in the appendix.

The authors have collected their information from a whole wealth of literature related to the subject and have presented a compact informative manual which has long been needed in the field of physical medicine.

—Millicent M. Han, Physical Therapist, Austin.

Surgery for General Practice

VICTOR RICHARDS, M.D., Professor of Surgery, Chairman of Department of Surgery, Stanford University School of Medicine, San Francisco. 947 pages. St. Louis. C. V. Mosby Company, 1956.

This well written and comprehensive book is the product of the author's and seven outstanding contributors' years of experiences and painstaking studies on the ward, in the operating room, and in pathological and experimental laboratories.

The text contains 43 chapters, the first of which describes anesthesia of choice and its reverses. The second chapter is perhaps the most dramatic and outstanding contribution, describing hemorrhage, shock, and the immediate treatment with blood and its substitutes before reconstruction and restoration of the body and tissues can be accomplished. The author felt this chapter was of first importance and included it in the beginning of the text to prepare the physician for the chapters that follow. Reference is made to this chapter frequently.

The remaining chapters are concerned with surgery. Each includes the various systems, organs, diagnosis, pathology, and choice of treatment. The description of the procedures and pathology of each phase is simple and excellent, profiled by 476 illustrations.

The text demonstrates the diligence which has been exercised in presenting such a valuable store of information. It is written for simplicity and filled with a wealth of knowledge.

—A. W. Brazda, M.D., Ranger.

Classics in Arterial Hypertension

ARTHUR RUSKIN, M.D., F.A.C.P., Associate Professor of Internal Medicine, University of Texas Medical Branch, Galveston. 358 pages. $9.50. Springfield, Ill., Charles C Thomas, Publisher, 1956.

This is not an ordinary history but a compilation of original papers which are truly classics in the field of arterial hypertension.

The introduction includes a direct translation from the Chinese literature of 2600 B. C. dealing with pulse lore of that time and a summary of interesting excerpts from antiquity.

The book is divided into two parts—"Methods" and "Significance." "Methods" is composed of eight papers presented over a period of 170 years dealing with the development of techniques in the recording of blood pressure beginning with the cumbersome, direct method of Stephan Hale in 1733 and leading eventually to the easy recording of blood pressure with the inflatable cuff and a mercury manometer described by Rive-Rocci in 1896. This section ends with the succinct presentation by Nikolai Korotkov of the auditory

method of determining blood pressure and a description of three phases for the determination of systolic and diastolic pressures.

With the development of an acceptable way to measure arterial pressure, its significance in disease was proven, and the second part of the book concerns its relationship to cardiovascular and renal disease. It includes 16 papers exemplifying the progress in knowledge over 300 years and ending with the memorable paper of Harry Goldblatt and his coworkers when they reported a workable method for the production of experimental renal hypertension.

This is an excellent book for those interested in medical history and the special field of cardiovascular disease. All translations, except in the introduction, are the author's, and, to paraphrase a statement in this modest preface, making them more generally available is a most useful addition to medical literature.

—George Clark, M.D., Austin.

Health Yearbook, 1956

Compiled by OLIVER E. BYRD, Ed.D., M.D., F.A.P.H.A., Professor of Health Education, Stanford University. 278 pages. $5. Stanford, Calif., Stanford University Press, 1957.

This book offers a resume of important publications in the fields of public health, medicine, and allied scientific areas. The author has shown great facility in his ability to summarize the material of one or more articles on a scientific subject and incorporate this material into a brief, concise statement understandable by nonprofessional people. The choice of material is good, a great variety of subjects being handled in the 254 articles comprising the work.

This book will serve as a ready source for writers, teachers, and lecturers who do not need detailed scientific information, and the bibliography will lead one to more detailed material if such is desired.

—Jay J. Johns, M.D., Taylor.

Surgery in World War II; Volume II, General Surgery

MEDICAL DEPARTMENT, UNITED STATES ARMY; editor in chief, Col. John Boyd Coates, Jr., MC; editor for general surgery, Michael E. DeBakey, M.D.; associate editors, W. Philip Giddings, M.D., Elizabeth M. McFetridge, M.A. 417 pages. Washington, D. C., Office of the Surgeon General, Department of the Army, 1955.

The historical unit of the Army Medical Service and its advisory editorial board have done a magnificent job of collecting masses of information and sifting and evaluating it. It is to be remembered that many of these people have given of their time and substance to produce these volumes and record the many lessons learned in the resuscitation of men severely wounded in battle. The methods of combating shock, the use of plasma, the indications for use of whole blood and the technique of administration are covered in the initial chapter as well as the use of albumin for elevating blood pressure with its freedom of such risks as hepatitis.

The importance of relief of pain is stressed as well as the control of hemorrhage and the methods by which this is done. The importance of conservation of body heat, position, emptying the stomach, and oxygen administration all come in for their proper share of consideration. An important section that bears careful reading is the one on morphine overdosage and poisoning, and the relief of pain by other methods comes in for its proper evaluation. It is interesting to read the section on the psychological preparation for operations and the importance of the chaplain and what he has to offer, particularly to a soldier in distress, for often it is only after his religious piece of mind is satisfied that serenity and self control get into command.

One should pause to pay tribute to the many lives saved by anesthesia and to the wonderful strides it made during the war years. The many different agents used properly and with the indications for each as they evolved during this period is one of the truly fine contributions of medicine.

Wounds of every organ in the abdomen are discussed, and the problems to be solved in connection with each are considered together with the effect of the time element in their care and management. The type of wounding agents also comes in for its share.

The classification of shock and its therapy as well as antibiotic therapy is discussed. A timely chapter on postoperative complications which include pulmonary as well as abdominal is included followed by a resume of the factors producing death. Included with the discussion of the abdomen are injuries of the blood vessels and retroperitoneal structures such as the kidneys. The final chapter on the management of colostomies is one that needs no emphasis for anyone who has had the experience of being on a receiving team of a hospital as patients arrived in considerable numbers.

—Joe C. Rude, M.D., Austin.

The Chemistry and Biology of Purines; Ciba Foundation Symposium

Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc. 327 pages. 124 illustrations and structural formulae. $9. Boston, Little, Brown and Company, 1957.

Clinical Physiology; The Functional Pathology of Disease

ARTHUR GROLLMAN, M.D., Ph.D., F.A.C.P., Professor and Chairman of the Department of Experimental Medicine, University of Texas Southwestern Medical School, Dallas, editor. 854 pages. $12.50. New York, Blakiston Division, McGraw-Hill Book Company, 1957.

It is a never ending cycle trying to keep in reading acquaintance with the constantly advancing concepts of this subject, so basic in the fundamentals of the practice of medicine as it has been, is now, and will be in the future. This is a much needed contribution which fills the gap in the metabolic, cardiovascular, and endocrine fields in which the greatest advances have taken place over the past decade.

This text is understandable, and one can get a grasp of the informational material needed without going into long and protracted reading of the literature on the subject. The illustrations are timely and well balanced. One is appreciative of the many references at the end of each chapter, and this, together with the multiple authorship in which each contributor is at home in his own field of special endeavor, makes of this a fine text for medical students and a good reference for practicing physicians who desire to understand more fully the basic principles biochemically, pathologically, pharmacologically, and bacteriologically of the diseases they encounter.

This text does an excellent job of correlation and will meet a real need.

—Joe C. Rude, M.D., Austin.

Connective Tissue in Health and Disease

G. ASBOE-HANSEN, M.D., editor; Connective Tissue Research Laboratory, University Institute of Medical Anatomy, Copenhagen. 321 pages. $15. New York, Philosophical Library, 1957.

This book represents the collected efforts of many leading medical investigators who have been delegated a chapter touching upon some facet of connective tissue. In the words of the editor, "The contributions have been made in the hope to acquaint the medical world with the status and significance of connective-tissue science by means of surveys bringing each aspect up to date." It begins with the most elementary laboratory findings which most of us can barely recall and peruses the entire collagen field in health and disease as the

title implies. This book is obviously written for the investigator or student who either has or must find the time to wade through the tedious details. For quick reading one would have to be well grounded in biochemistry. Practitioners and busy clinicians would hardly consider this a handy manuel. In fairness to all concerned the topic involved is vast and any attempt to present detailed considerations is indeed a feat. Dr. Asboe-Hansen aptly expresses the situation when he asks the reader "to receive the publication with tolerance of its shortcomings and with sympathy for its aims."

A bright spot in this book is the chapter devoted to collagen diseases as related to dermatology. This section is concise, descriptive, and pertinent. It gives rapid thumbnail sketches of the various disorders, which surely will help many who have been hopelessly lost in the maze of ever changing classifications.

I would recommend this book for the scientifically inclined, biochemists, clinical researchers, hapless medical students and convalescing practitioners with an abundance of unoccupied time.

—Wade H. Lewis, M.D., San Antonio.

ORGANIZATION SECTION

★ American Medical Association

AMA Conferences To Be Held

Two American Medical Association councils have planned meetings for the coming months. The eighth annual County Medical Societies Civil Defense Conference, sponsored by the AMA Council on National Defense, will be held November 9-10 at the Morrison Hotel in Chicago; the fourth annual Conference on Mental Health will be November 22-23 in Chicago; and the fifty-fourth annual Congress on Medical Education and Licensure is scheduled for February 9-11 at the Palmer House in Chicago.

For the Conference on Mental Health in Chicago November 22 and 23, discussion topics will be: (1) the role of the general practitioner in relation to a specific psychiatric case, (2) Blue Cross-Blue Shield and other voluntary health insurance plans for the psychiatric patient, (3) relationship of the psychiatrist in private practice to the general hospital in his community, and (4) psychiatric and related mental health problems in industry.

Mental health representatives from county medical societies will be welcome. The guest speaker at a dinner meeting on the first evening will be Dr. Manfred Guttmacher, Baltimore, who will speak on "The Role of Psychiatry in Relation to the Problem of Capital Punishment."

The Congress on Medical Education and Licensure will be sponsored by the Council on Medical Education and Hospitals, the Federation of State Medical Boards of the United States, and the Advisory Board for Medical Specialties. The major topic of concern at the congress will be medical education in the rapidly changing scene. The conferees will view medical education's broad potential from four facets—the changing characteristics of the nation's population, sociological trends, economy and medical knowledge, and the implications of these factors on medical education, medical research, and medical care.

To help local medical and health personnel plan their roles in disaster and civil defense emergencies is the purpose of the Civil Defense Conference. At the meeting a report will be given by Congresswoman Martha W. Griffiths of Michigan on the status of national civil defense legislation. Other reports include one on the experience gained through several test operational exercises conducted under simulated disaster conditions, including a critique of the national exercise "Operation Alert."

AMA SETS UP RESEARCH FOUNDATION

The American Medical Research Foundation was established recently by the American Medical Association. The following are the principal purposes of the foundation: (1) to promote the betterment of public health through scientific and medical research; (2) to plan and initiate scientific and medical research, and (3) to collect, correlate, evaluate, and disseminate results of scientific and medical research activities to the general public.

Meetings will be held annually at the time of the AMA annual sessions, and voting members of the foundation will be AMA Trustees.

★ Texas Medical Association

ANNUAL SESSION PROGRESS

Twenty-five noted out-of-state guest speakers will spark the programs of nine scientific sections and about a score of specialty societies at the 1958 annual session of the Texas Medical Association in Houston, April 19-22. Although the list of guests had not been completed by press time, the following have definitely accepted invitations to attend:

Dr. C. Knight Aldrich, Chicago—neuropsychiatrist.

Dr. David B. Allman, Atlantic City—President, American Medical Association.

Dr. Raynold N. Berke, Hackensack—ophthalmologist.

Dr. Robert N. Creadick, Durham, N. C.—obstetrician and gynecologist.

Dr. Victor Goodhill, Los Angeles—otolaryngologist.

Dr. Burgess L. Gordon, Albuquerque—chest physician.

Guest speakers tell of latest medical advances.

Dr. George C. Griffith, Los Angeles—cardiovascular diseases.
Dr. Elmer Hess, Erie, Pa.—urologist.
Dr. John Tilden Howard, Baltimore—gastroenterologist and proctologist.
Dr. Amos R. Koontz, Baltimore—traumatic surgeon.
Dr. Barbara Korsch, New York—pediatric psychiatrist.
Dr. George M. Lewis, New York—dermatologist.
Dr. Edward G. McGavran, Chapel Hill, N. C.—public health physician.
Dr. Joe V. Meigs, Boston—cancer specialist.
Dr. Russell H. Morgan, Baltimore—radiologist.
Dr. I. S. Ravdin, Philadelphia—cancer specialist.
Dr. Robert J. Reeves, Durham, N. C.—radiologist.
Dr. James D. Rives, New Orleans—surgeon.
Dr. Howard F. Root, Boston—diabetes specialist.
Dr. Julian M. Ruffin, Durham, N. C.—internist.
Dr. Robert M. Smith, Boston—anesthesiologist.
Dr. Joseph Stokes, Jr., Philadelphia—pediatrician.
Col. Frank M. Townsend, Washington, D. C.—pathologist.
Dr. Allen F. Voshell, Baltimore—orthopedist.

The 1958 program will extend over a four day period, rather than five as in the past, with the President's Party on Tuesday (April 22) evening being the final event of the session. The change in format for the coming meeting were recommended by the Council on Scientific Work and approved by the Executive Council at its meeting last month. The revised format includes a general meeting luncheon on Tuesday as well as on Monday and the final meeting of the House of Delegates on Tuesday afternoon rather than on Wednesday morning. Refresher courses will be given on Monday and Tuesday mornings, scientific section programs on Monday and Tuesday afternoons, and most specialty society meetings on Sunday and Monday.

ANNUAL SESSION REMINDERS

Doctors who wish to present papers before the scientific sections of the Association should submit these papers, or their topics, to the appropriate section officers immediately. Section programs are being arranged currently, but some already have been completed. The section officers follow:

OFFICERS OF SCIENTIFIC SECTIONS

SECTION ON GENERAL PRACTICE
J. H. Steger, Fort Worth, Chairman.
James H. Sammons, Highlands, Secretary.

SECTION ON INTERNAL MEDICINE
Dolph L. Curb, Houston, Chairman.
Hugh Arnold, Houston, Secretary.

SECTION ON SURGERY
W. H. Pickett, Dallas, Chairman.
T. G. Blocker, Galveston, Secretary.

SECTION ON OBSTETRICS AND GYNECOLOGY
Frank J. Lee, Wichita Falls, Chairman.
W. H. Jondahl, Harlingen, Secretary.

SECTION ON EYE, EAR, NOSE, AND THROAT
Alfred A. Nisbet, San Antonio, Chairman.
Jack L. Turner, Odessa, Secretary.

SECTION ON RADIOLOGY
Robert N. Cooley, Galveston, Chairman.
Francis E. O'Neill, San Antonio, Secretary.

SECTION ON PUBLIC HEALTH
J. E. Peavy, Austin, Chairman.
Fred K. Laurentz, Houston, Secretary.

SECTION ON PATHOLOGY
Lloyd Hershberger, San Angelo, Chairman.
J. E. Williams, Abilene, Secretary.

SECTION ON PEDIATRICS
Edward L. Pratt, Dallas, Chairman.
A. O. Manske, Waco, Secretary.

Scientific ond technical exhibits provide extra interest.

The Committee on Scientific Exhibits is considering applications for scientific exhibit space in Houston. Doctors who wish to enter exhibits should write Dan Lehman, Coordinator of Exhibits, Texas Medical Association, 1801 North Lamar, Austin, for applications. The committee considers applications from time to time, thus giving early notice of acceptance or rejection. The general objectives to be achieved by the exhibits are to emphasize new concepts and recent advances, to reemphasize older and possibly forgotten knowledge that still is useful and applicable, and to show what Texas doctors are doing.

TMA Offers Programs for County Societies

Pamphlets describing the programs available through the Texas Medical Association's central office were mailed in mid-August to all county medical societies. Nine programs on cardiac diseases, three on medical economics subjects, and one each on socioeconomic and legislative trends, Medicare, insurance, and public relations can be scheduled. So far, response has been good.

More copies of these pamphlets will be sent shortly; also, a program on legal aspects of medicine is being planned and will be available for county society meetings in the near future.

DATES FOR TMA CONFERENCES ANNOUNCED

Preliminary plans for several Texas Medical Association events scheduled for January in Austin have been announced by the President, Dr. Denton Kerr of Houston.

In conjunction with the Executive Council meeting Sunday, January 19, a conference for county medical society officials, a symposium on legislation, an orientation program for new and transfer members, and a series of committee meetings will be held Saturday, January 18. Among the speakers who will participate in the week end sessions is Kenneth McFarland, Ph.D., Topeka, Kan., an educator and nationally known speaker sponsored by General Motors.

The second Conference on Physicians and Schools sponsored by the Association's Committee on School-Physician Relationships has been set for Tuesday and Wednesday,

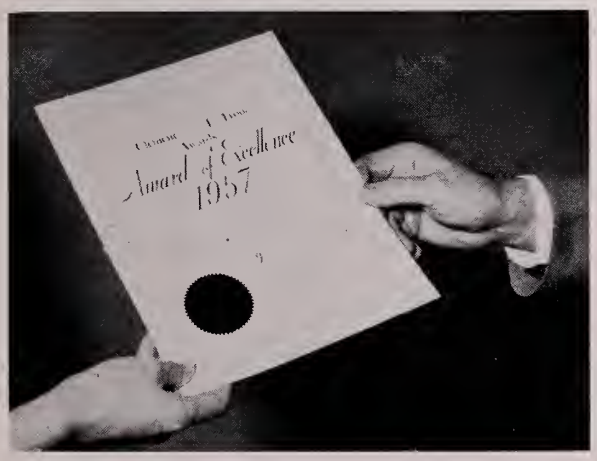
January 7 and 8. Physicians, school administrators, public health personnel, school board members (particularly physician members), and Parent-Teacher Association representatives are being invited to discuss problems of mutual concern relating to the health of school children.

Journal Twice Winner

Two awards for the *Texas State Journal of Medicine* were announced at the Midcontinent Conference of the International Council of Industrial Editors in Oklahoma City, September 11-13. A first place "award of excellence" in the trade and association division of the competition was received by the *Journal* for the best single article or editorial (Clement E. Trout award). Chosen to represent the *Journal* in this classification was the article entitled "Surgery: A Cultural Factor in Early Texas" by Dr. P. I. Nixon of San Antonio, which appeared in the March issue. A second place "award of merit" was won for general excellence.

The *Journal* holds membership in ICIE through the Society of Austin Industrial Editors, a professional organization composed of staffs of business, industrial, and association publications and the printers, engravers, artists, and photographers with whom they work. Although the *Journal* has not been entered in the annual competition each year, an award for general improvement was won in a similar event in 1949.

Present at the Oklahoma City conference to receive the award certificates was Miss Harriet Cunningham, managing editor of the *Journal*. Working with her as editorial assistants during the year for which the awards were received have been Mrs. Neil R. Gurwitz and Mrs. John A. Murphey, Jr. The *Journal*, like other projects carried on for the membership of the Texas Medical Association by its central office staff, is under the general supervision of the Executive Secretary, C. Lincoln Williston.



One of the certificates won by the *Texas State Journal of Medicine* changes hands.

Membership Directories Available

Directories listing members of the Texas Medical Association, their mailing addresses, telephone numbers, and specialties, produced through courtesy of Blue Cross-Blue Shield of Texas, have been distributed to Association members. Additional copies may be obtained through the Business Office, Texas Medical Association, 1801 North Lamar Blvd., Austin, at $10 each; checks should be made payable to Blue Cross-Blue Shield.

The Blue Cross membership directory is based on information provided by the Association in November, 1956. More recent listings of members and mailing addresses arranged by county medical society within districts appear in the membership list published in the July issue of the *Texas State Journal of Medicine*. Reprints of this *Journal* membership list are available from the Association's Business Office at 60 cents each, payable to the Association.

Demand for Journals Still Exists

The *Texas State Journal of Medicine* staff is still willing to pay postage on copies of the January and February, 1956, and May, 1957, issues of the *Journal* which are returned to it at 1801 North Lamar Blvd., Austin, to supplement depleted reserve supplies.

COMMITTEE CHANGES

A number of additions and changes in committee lists for the Texas Medical Association have been announced by the President, Dr. Denton Kerr, Houston, since the list was published in the July *Journal*. These include the following (figures in parentheses are years in which terms expire):

Committee on Medical History—Dr. T. C. Terrell, Fort Worth, resigned August 16 and was replaced by Dr. J. M. Coleman, Austin (1960).

Committee on Public Relations (appointments by Board of Trustees)—Dr. James A. Hallmark, Fort Worth (1959), and Dr. Foy H. Moody, Corpus Christi (1958).

Committee on Tuberculosis—Dr. W. D. Anderson, San Angelo, resigned as chairman and from the committee July 29. Dr. Elliott Mendenhall, Dallas, already a member of the committee, was named chairman August 15; Dr. John H. Selby, Lubbock (1961), was named to the vacancy on the committee. Dr. O. Edward Egbert, El Paso (1960) was appointed to a vacancy already existing on the committee.

Committee on Mental Health.—Dr. David M. Keedy, San Antonio, resigned October 5, creating a vacancy (1960) not yet filled.

Committee on Blood Banks—Dr. W. J. Emerson, Laredo, died July 5, creating a vacancy (1958) not yet filled.

Following are additions to appointments previously made:

Committee for Liaison with State Bar of Texas—Dr. William Klingensmith, Amarillo.

Committee on Military and Veterans Affairs—Dr. Walter Walthall, San Antonio.

Committee on Nuclear and Atomic Medicine—Dr. J. E. Miller, Dallas.

Advisers to Texas Chapter of the Student American Medical Association—Dr. George V. Launey, Dallas, Southwestern; Dr. E. Sinks McLarty, Galveston, University of Texas Medical Branch.

Committee on Bracero Insurance and Medical Care—Dr. C. E. Oswalt, Fort Stockton, chairman; Dr. S. W. Bohmfalk, Weslaco; Dr. J. G. Rodarte, Temple; Dr. J. W. Matthews, Edinburg; Dr. G. A. Hoffman, Fort Stockton; Dr. J. L. Moet, LaFeria.

Appointees to Board for Ophthalmic Technicians—Dr. Milton J. Loring, Midland (1961); Dr. Mary Agnes Lancaster, Dallas (1960); Dr. Vernon A. Black, Wharton (1959); Dr. Richard E. Leigh, Jr., Houston (1958).

Committee to Study Asian Influenza—Dr. Frederick C. Lowry, Austin, chairman; Dr. John F. McKinney, Jr., Temple; Dr. Robert E. Leslie, El Campo; Dr. J. M. Coleman, Austin; Dr. John H. Bohmfalk, San Antonio.

ASIAN FLU COMMITTEE NAMED

Acting in accordance with a resolution introduced by the Board of Councilors and adopted by the Executive Council on September 8, Dr. Denton Kerr of Houston, President of the Texas Medical Association, has appointed a committee to keep abreast of developments on Asian influenza and to provide guidance and direction in regard to policy and performance of medical care (See committee changes, page 807).

The resolution pointed out that much publicity has been given to a possible influenza epidemic in recent months and that there has been agitation for mass vaccination against the disease. It went on to state that a continuation of this philosophy wihout direction from the Texas Medical Association is likely to result in confusion similar to that encountered in the poliomyelitis vaccination program.

The Executive Council went on record as advocating that influenza vaccine be administered in accordance with the established doctor-pharmacist relationship and reaffirmed the philosophy that no patient should be denied influenza vaccine or medical care because of economic distress.

★ County Societies

County Society Programs

Programs which have been presented before county medical societies recently include:

Big Bend Society—"Female Anatomy," motion picture; and "The Cardiac Patient in Stress," motion picture.

Hill County Society—"Subdural Hematoma," Dr. Harry W. Slade, Waco.

McLennan County Society—"The Medical Witness," motion picture, presented by Philip R. Overton, Austin, General Counsel for the Texas Medical Association; and "The Doctor Defendant," motion picture.

Medina-Uvalde-Maverick-Val Verde-Terrell-Edwards-Real-Kinney-Zavala Counties Society—"Cardiac Arrhythmias," Dr. George Herrmann, Galveston; and "Foreign Bodies of the Trachea and Esophagus," Dr. Sam Greer, San Antonio.

Potter County Society—"How to Coexist with Inflation," Mark Myers, director of Dental-Medical Economics of Dallas.

Tarrant County Society—"Pulmonary Disease Simulating Tuberculosis," Dr. John S. Chapman, Dallas; "Some of the Problems of Medical Education," Dr. A. J. Gill, Dallas; and "Some Current Problems Between Law and Medicine," Dr. Hubert W. Smith, Director of the Law Science Institute, University of Texas, Austin.

Tom Green-Eight County Society—"The Senior Citizen—His Problems and Care," Dr. Ernest W. Keil, Temple.

Notes from the Minutes

From the minutes of various county medical society meetings come the following briefs:

The local press in Amarillo requested that one of its members be allowed to sit in on monthly meetings of the *Potter County Medical Society* and make reports to the newspaper. The society voted not to have a reporter at its meetings, but to provide releases of general interest for publication.

In *Tarrant County,* a committee has been appointed to revise, bring up to date, codify, and index the society's bylaws to coincide with those of the Texas Medical Association.

WOMAN'S AUXILIARY

Wives Seek Instruction

It was a hard-working, enthusiastic group of doctors' wives who came by train, plane, and car to Austin September 25 for the annual School of Instruction held by the Woman's Auxiliary to the Texas Medical Association.

They came for more than one reason, to learn how to run their local auxiliaries more efficiently, to push the importance of State Auxiliary projects, to carry back information to the members of their local organizations who did not attend the workshop, and to get acquainted with doctors' wives from all over the state.

The morning session, with Mrs. W. Frank Armstrong of Fort Worth presiding, was devoted to reports from state committee chairmen.

After lunch, served in the Association headquarters where the School of Instruction was held, the delegates broke up into small groups to discuss the particular problems of their local organizations and trade ideas.

Not until evening did the Auxiliary members put work aside to turn to the lighter, but also important, business of simply having a good time.

The evening's entertainment, held at the Deck Club of the Commodore Perry Hotel, included a sherry party given by Mrs. Horace S. Renshaw of Fort Worth, State President, and dinner served beside the Club's indoor pool. Guests were both entertained and enlightened by a clever program about Auxiliary activities by Mrs. G. Bedford Brown of Angleton.

Many of those who attended the School of Instruction stayed over for a meeting of the Executive Board the next morning, at which Mrs. Renshaw presided.

High light of the Thursday morning session was the talk by C. Lincoln Williston, Executive Secretary of the Texas Medical Association, in which he pointed out ways in which the Auxiliary can be most helpful to the Texas Medical Association.

"Legislation and public relations are our two most important joint objectives," Mr. Williston emphasized. He also went into detail about medical legislation expected to come up at the second session of the Fifty-Eighth Congress, giving Auxiliary members the information needed to make the organization more effective politically.

With a State President who is stressing Zest and Awareness as key words to sum up the qualities needed for effective group action, 1957-1958 should be a busy and productive year for auxiliaries throughout the state.

—MRS. FREDERICK C. LOWRY, Austin.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

RECENT DEATHS

DR. ALONZO A. ROSS

Dr. Alonzo Alverly Ross, emeritus member and former President of the Texas Medical Association, died September 24, 1957, at his home.

He was born January 22, 1868, in Caldwell County, and was the son of Abner Milton and Elizabeth (Shupe) Ross. He received his preliminary education in Prairie Lea and at the Jordan Institute in Lockhart, and was graduated from Tulane University School of Medicine, New Orleans, in 1896. He also did advance work at the University of Vienna, Austria, in 1902, and postgraduate work at New York Polyclinic School and Hospital, New York Hospital, and Tulane University School of Medicine.

Dr. Ross began practicing in 1893 in Hochheim where he stayed until 1901. In 1903, he went to Lockhart, where he formed a partnership with his boyhood friend, Dr. T. B. Coopwood, and was active there throughout his career. In 1914, Dr. Ross aided in the formation of an agreement among the resident doctors to build a hospital and form a group practice, the first such arrangement in that part of the country. During World War I, he served as chairman of the Selective Service Board of Caldwell County.

DR. ALONZO A. ROSS

Dr. Ross was a long time, consistent, and honored worker in the ranks of organized medicine, serving as sixty-seventh President of the Texas Medical Association. He also served in all of the offices of his county society, Caldwell County Medical Society; as president for 2 years of his district society; as a member for several years of the Committee on Legislation of the Texas Medical Association; as Vice-President of the Association; and for years as Councilor for his district.

He had been president of the Texas Railway and Traumatic Surgical Association; was a member of the Southern Medical Association, and the American Academy of General Practice; was on the Lockhart School Board for 36 years; and had been president of the Lockhart Business Men's Club.

An ardent worker in the Masonic Order, Dr. Ross was a thirty-third degree Mason, a Knight Templar, a member of the Shrine, in 1918 Grand Master of the Grand Lodge of Texas, a trustee and member of the board for many years of the Masonic Home and School at Fort Worth, member and past chairman of the Committee on Grand Officers Reports of the Grand Lodge of Texas, and a Sovereign Representative to Grand Lodge of England. He was a member of the First Baptist Church, Lockhart Chamber of Commerce, and Kiwanis Club.

Miss Ella E. Timm and Dr. Ross were married in Hochheim on November 11, 1896. Mrs. Ross died September 17, 1935. Survivors include two sons, Dr. Abner A. Ross of Lockhart and Dr. Raleigh R. Ross of Austin; two daughters, Mrs. Lewis M. Dabney, Jr., of New York and Mrs. Charles E. Dillon of Alexandria, Va., and a brother, Charles P. Ross of Lockhart.

Before entering medical school, Dr. Ross had lived in California, Oregon, and Washington, returning to Texas as a worker with a railroad. He recalled that he had driven the last spike in the Southern Pacific bridge over the Pecos River, then the highest bridge in the world. As an orphan boy, he had arranged and paid for an operation on his crossed eyes by Dr. Adolf Herf in San Antonio, done without benefit of anesthetic; this first operation was not successful and was repeated 2 years later, this time with an anesthetic, Dr. Herf having learned meanwhile of its usefulness. Later, after reading medicine with a Lockhart doctor and during his days at Tulane, Dr. Ross became close friends with a young anatomy instructor, now the well known Dr. Rudolph Matas.

DR. JESSE E. ROSS

Dr. Jesse Ellick Ross, Henderson, Texas, died of coronary thrombosis August 14, 1957.

Son of Dr. Jesse E. and Mary Elizabeth Ross, he was educated in the public schools of Henderson; he was born in that city on October 25, 1903. He took his premedical training at Baylor University, Waco, and was graduated from the

DR. JESSE E. ROSS

University of Arkansas School of Medicine, Little Rock, in 1935. He interned in the Methodist Hospital, Houston, and was a resident one year at Herrmann Hospital, Houston. Later, he did postgraduate work at the Cook County Hospital, Chicago. With the exception of four years as a commander in the Navy Medical Corps during World War II, Dr. Ross practiced in Henderson from 1937 until the time of his death.

Dr. Ross was a member of the Texas and American Medical Associations through the Rusk County Medical Society, of which he was president in 1949-1950. He also was a member of the Texas Academy of General Practice and the First Methodist Church.

As hobbies, Dr. Ross fished, hunted ducks, and raised Hereford cattle.

Miss Opal Wilhite, Dallas, and Dr. Ross were married September 2, 1929. Survivors other than Mrs. Ross are a son, James B. Ross, a premedical student in Baylor University, Waco; and a sister, Mrs. R. B. Carter, Houston.

DR. RICHARD E. BARR

Dr. Richard Everett Barr, Beaumont, Texas, died August 14, 1957, at his home of amyotrophic lateral sclerosis.

Born July 31, 1888, in Sprinkle, he was the son of W. B. and Tillie (Birdwell) Barr. He attended Texas Agricultural and Mechanical College, and the University of Texas, Austin, and was graduated from the University of Texas Medical Branch, Galveston, in 1920. He interned at John Sealy Hospital there, then became superintendent of the Frances Ann Lutcher Hospital, Orange, a position which he held until 1932 when he entered the private practice of radiology in Beaumont. He retired in 1954.

Dr. Barr was a member of the Jefferson County Medical Society at the time of his death, but had served as president of the Orange County Society from 1925 until 1931. In 1955, he was elected to inactive membership in the Texas Medical Association after having been a member since 1928 and having served in 1930 as chairman of the Section on Radiology and Physiotherapy. He also was a past president of the Texas Radiological Society and a member of the Radiological Society of North America, Phi Beta Pi medical fraternity, and American Medical Association, and was a fellow of the American College of Radiology. In his community, he was a member of the Drake Memorial Presbyterian Church of Orange, the Shrine, and Royal Arch Masons.

DR. RICHARD E. BARR

During World War I, he was enrolled in the Students Army Training Corps at the Medical Branch.

Miss Alma Savage and Dr. Barr were married September 22, 1916, in Temple. Mrs. Barr survives, as does a sister, Mrs. Frank Jamison, Austin.

DR. HUGH DAVIS

Dr. Hugh Davis, Seguin, Texas, died August 15, 1957.

He was born December 14, 1893, in Burkeville, and was the son of J. P. and Mary (Cohran) Davis. He attended schools in Gary, and studied at Lon Morris College in Jacksonville for three years before entering Southwestern University, Georgetown, from which he was graduated in 1920.

DR. HUGH DAVIS

Dr. Davis received his doctor of medicine degree from the University of Texas School of Medicine, Galveston, in 1924, and interned at Santa Rosa Infirmary, San Antonio. He began general practice in Texas City in 1925, and also practiced briefly in Bishop before moving in 1930 to Seguin, where he was active at the time of his death.

He was secretary of the Guadalupe County Medical Society in 1933 and 1949, and served as president in 1934. He also was a member of the Texas Medical Association, American Medical Association, Methodist Church, and Masonic Order. For recreation, Dr. Davis enjoyed playing the organ.

During World War I, he served as an enlisted man in the Army Medical Corps.

Miss Bertha Mosheim and Dr. Davis were married June 27, 1925, in Seguin; she survives, as do a son, Capt. John Thomas Davis, M. D., McCellian Air Force Base, Sacramento, Calif.; one brother, the Rev. S. S. Davis, Austin; and five sisters, Mrs. H. D. Williams, Magdalena, N. Mex.; Mrs. W. H. Williams, San Angelo; Mrs. Jack Dearing, Houston; Mrs. Ed Foley, Lindsay, Okla.; and Mrs. Nora Hairston, Chireno.

DR. W. J. EMERSON

Dr. William Joseph Emerson, Laredo, Texas, a member of the Texas Medical Association's Committee on Blood Banks and vice-president of the Webb-Zapata-Jim Hogg Counties Medical Society, died of cor pulmonale July 5, 1957.

He was born in Somerville, N. J., March 14, 1917, and was the son of Leo G. and Mary C. (DeMond) Epstein. Dr. Emerson attended preliminary schools in Bound Brook, N. J., and Springfield, Ill., and was graduated from the Catholic University of America, Washington, D. C., in 1940. He received his doctor of medicine degree in 1944 from the George Washington University School of Medicine, and interned in New York Hospital. The next two years he took a residency in pathology at Massachusetts General Hospital. In 1947, he received a Donner Foundation Fellowship in cancer research (pathology of breast cancer in hormone therapy), and he continued his work the following year with a grant from the United States Public

DR. W. J. EMERSON

Health Service. In 1950, he was awarded a Fulbright fellowship in cancer research at Le Laboratoire Pasteur de l'Institut du Radium in Paris, France. Dr. Emerson had been consultant to the Research Tumor Registry at the University of Texas M. D. Anderson Hospital and Tumor Registry, Houston, for the past few years. He had published several scientific papers on cancer of the breast. He began practicing his specialty in Laredo in 1953, and was in active practice at the time of his death.

Besides his activities in his state and county medical organizations, he was a member of the American Medical Association, George Washington University Medical Society, and Sigma Xi honorary science fraternity, and was chief of staff of Mercy Hospital. He also was a member of the Reform Party and the Committee on World Affairs. For recreation, Dr. Emerson enjoyed motorcycling, sailing, and photography.

He and Miss Helen Ruth Davidson were married June 18, 1949, in Kirkwood, Mo. She survives, as do three children, Dominique Margaret, Sharon Ruth, and Michael James, all of Laredo; a sister, Mrs. Walter Meigs, Storrs, Conn.; and his parents, Mr. and Mrs. L. G. Epstein, Watchung, N. J.

DR. N. W. ATKINSON

Dr. Newell Wrigley Atkinson, Alice, Texas, died of a coronary occlusion July 5, 1957, at his home.

He was born in Webberville on March 16, 1876; his parents were Newell and Ludy Atkinson. He attended public school in Austin, and received his doctor of medicine degree from the University of Texas School of Medicine, Galveston, in 1898. After practicing in Port Bolivar, near Galveston, 2 years, Bartlett for a few months, and at Copperas Cove for about 5 years, he moved in 1907 to Alice, and had been in practice there for 50 years. Dr. Atkinson was a member of the Texas and American Medical Associations through the Brooks-Duval-Jim Wells Counties Medical Society, of which he was president in 1935-1936. He also was a life member of the Masonic Order, and donated the land on which the local temple has been built. During World War I, he was a captain in the Army Medical Corps and served 18 months in France.

Dr. Atkinson was married in 1907 to Miss Helen C. Crenshaw; she died February 5, 1955. Survivors are a son, Newell Wrigley Atkinson, Jr., Alice; a sister, Mrs. Mabel DeWald, Corpus Christi; and two grandchildren, both of Alice.

DR. ABRAHAM ANTWEIL

Dr. Abraham Antweil, Fort Worth, Texas, died of reticuloendothelial cell sarcoma July 16, 1957.

Dr. Antweil was born in Vilna, Poland, on February 9, 1896, and was the son of Hanna (Tolk) and Joseph Antweil. After coming to the United States, he received his primary education in New York schools, and entered New York University College of Medicine. He was graduated in 1918, and spent a year in residency at the Gouveneur Hospital, New York. During World War 1, he served as a first lieutenant in the Army Medical Corps, then moved to Fort Worth where he began his general practice. He was on the staff of the city-county hospital in Fort Worth, was a member of the Texas and American Medical Associations

DR. ABRAHAM ANTWEIL

through the Tarrant County Medical Society, and was a member of the Southern Medical Association.

He also was a member of the Downtown Kiwanis Club, was of the Jewish faith, and belonged to B'nai B'rith Lodge. He served on the board of trustees of the Jewish Federation for a number of years. Dr. Antweil was active in the field of real estate as well as medicine, and counted golf (before his illness) and his grandchildren as hobbies.

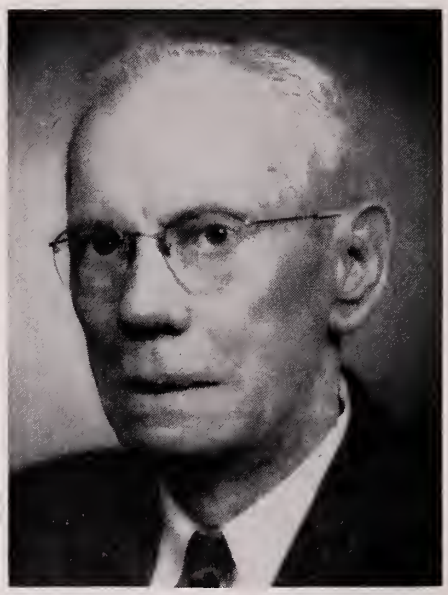
Miss Frieda Belle Maier and Dr. Antweil were married February 7, 1927, in Lockhart; Mrs. Antweil died January 17, 1956.

Survivors are a son, Joe David Antweil, Fort Worth; a daughter, Mrs. Shirley Rubinson, Fort Worth; two brothers, Morris Antweil, Fort Worth, and Benjamin Antweil, Gladewater; and four sisters, Mrs. Mamie Lichter and Mrs. Fannie Silberman, Dallas; Mrs. Bessie Golden, Corsicana; and Miss Ida Antweil, Fort Worth.

DR. M. L. FULLER

Dr. Martin Luther Fuller, Laredo, Texas, died July 19, 1957, after suffering a heart attack in May followed by a stroke in June. He entered the field of public health in 1938, and had retired at the end of April this year. Dr. and Mrs. Fuller were visiting in Abilene at the time Dr. Fuller became ill; they had decided to make Abilene their home.

He was born September 3, 1877, in Lamar County; his parents were Ben and Mary (Alexander) Fuller. He attended public schools in Deport and Trinity University in San Antonio, then entered the University of the South, Sewanee, Tenn., where he studied two years. He was graduated from Baylor University Department of Medicine, Dallas, in 1908; in 1942 he went to the University of Michigan, Ann Arbor, for postgraduate work in public health.



DR. M. L. FULLER

In 1908, Dr. Fuller began his general practice in Bradshaw; he moved in 1921 to Amarillo, where he was in private practice 17 years. He then became city health officer in Amarillo, and in 1944 was appointed director of the Mineral Wells—Palo Pinto County Health Unit. He headed a public health unit at Brownwood for a year and a half before moving to Laredo as director of the Laredo-Webb County Health Unit.

He was elected to honorary membership in the Texas Medical Association in 1957 after having been a member since 1909. He was a member of the Webb-Zapata-Jim Hogg Counties Medical Society, the American Medical Association, Texas Public Health Association, Texas Public Employees Association, Church of Christ, Masonic Lodge, Lions Club, and the American Legion. During the first World War, he was a first lieutenant in the Army Medical Corps.

Miss Gertie Horn and Dr. Fuller were married September 29, 1920, in Baird. Mrs. Fuller survives, as does a brother, Ben Fuller, Deport.

DR. W. R. WORTHEY

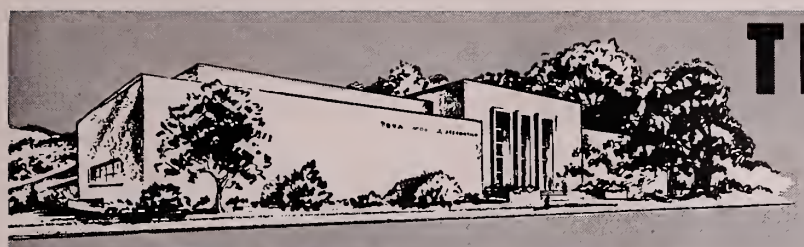
Dr. William Richard Worthey died July 3, 1957, in Call, Texas, after he had been ill with pneumonia.

Dr. Worthey was born September 23, 1874, in Rockland, and was the son of W. H. and Dewilda (Gregory) Worthey. He attended public schools and Memphis Hospital Medical College, Memphis, Tenn., before being graduated in 1912 from the Fort Worth School of Medicine. He began his practice in Smith's Ferry, then moved to Rockland for 10 months; he also practiced in Town Bluff and Jasper before settling in 1934 in Call. He practiced for 40 years at various Kirbey Lumber Company mills.

DR. W. R. WORTHEY

He was elected to honorary membership in the Texas Medical Association in 1955, after having been a member since 1904 through the Tyler or Jasper-Newton Counties Medical Society. He served the latter group as secretary from 1935 until 1939 and as president from 1940 until 1942. He also was a member of the American Medical Association, Tenth District Medical Society, Masonic Lodge, and Lions Club.

He was married on January 20, 1907, to Miss Bertha Shepherd. She survives, as do a daughter, Mrs. Grace Richards, Houston; a son, John T. Worthey, Call Junction; two brothers, Jack Worthey and Jim Worthey, Rockland; and two sisters, Mrs. Docia Simmons and Mrs. Vird Allen, Rockland.



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Your House of Delegates

How often have you heard, or perhaps said yourself, "Politics is O.K. for those who like it, but let's leave it to old Joe; he has the time and a leaning in that direction. As for me, I'm too busy attending to my own affairs, and besides it holds no interest for me"?

By the term "politics," you refer to the work of your elected county and state officers, your various county and state committees, as well as your House of Delegates of the state Association. The acts of these individuals or groups have a very important bearing on you individually and have a considerable influence on how you do "attend to your own affairs." Your careful consideration of the men who represent you and the problems they must attempt to solve for you is well worth your best thought and effort.

This is especially true of the policymaking body of your state Association, the House of Delegates. By this group, who are your representatives, decisions are made concerning many important matters. For example, it makes decisions pertaining to socioeconomic problems such as Texas doctors' participation in Medicare, the creation of and the procedure of grievance committees, and many other problems of equal importance to every practicing physician. It sets the amount of your annual state society dues and checks on the method in which they are spent. It is your intermediate representative to the American Medical Association, and its voice is loud and respected in the policy forming body of that organization. It is the voice of Texas medicine, both to Texas and from Texas. It is *you* speaking loud enough to be heard, and its composition and its expressions well merit your interest and cooperation.

Its members should be carefully chosen. Your representative should have the judicial ability to see all sides of a problem, weigh the evidence presented, and arrive at the best decision possible. He should have the desire to acquaint himself with important matters under consideration and a sincere interest in their solutions. He should have the courage of his convictions and be willing and able to express them before committees or on the floor of the House. In most instances he should be perpetuated for several years as experience and knowledge gained as a delegate renders him more valuable to you and to the House itself.

In the final analysis the House of Delegates is composed of delegates, your county society representatives. The delegate is just that, your representative. As such he is entitled to know —actually he should know—your opinions and your county society's opinions on important topics. This year each county society will be furnished, well in advance of the meeting of the House of Delegates, with copies of most resolutions to be presented to it and with reports of most councils and committees which are to be made to the House. If each county society will select its delegates by January as specified in the by-laws, they can acquaint themselves with these problems early, present them to you as a county society, and have the advantage of your opinions in their approach to a solution.

In some cases it is well to instruct your delegates as to their course of action. In most it is not entirely wise. Many angles are presented before the House on some important problems, sometimes by men whose source of information is greater than that in our local societies; facets of a problem are developed which were not obvious in discussion at the county level. In most questions it is best for your delegate to have the advantage of your own local opinion, but choose as your delegate a man of sufficient ability to study a problem from all angles and, taking into consideration his own county society's feeling, still arrive at a conclusion which will be most beneficial to all concerned.

Every member of the Texas Medical Association should take an interest in his House of Delegates, in the problems with which it is confronted, for these problems are his problems. If that is "politics," he should be a politician, for after all, a politician has been defined as a "citizen in action."

—C. P. HARDWICKE, M.D., Austin.

Stepping Stones

In keeping with one of its major objectives —"to extend medical knowledge and advance medical science"—the Texas Medical Association has a number of working committees devoted to particular diseases or other specific aspects of medical science. Three of these might be singled out for commendation for their current efforts to disseminate information about the conditions with which they deal: the Committees on Tuberculosis, Cardiovascular Diseases, and Cancer.

All three of these committees, working in cooperation with other organizations interested in the same problems—Texas Division, American Cancer Society; Texas Heart Association; Texas Tuberculosis Association; and Texas Chapter, American College of Chest Physicians, are offering programs of speakers, panels, or motion pictures on current diagnostic and therapeutic techniques for county medical societies. The Committee on Cardiovascular Diseases with the Texas Heart Association is publishing a monthly page in the advertising section of the *Texas State Journal of Medicine* on important facts to remember about cardiovascular conditions. The Committee on Cancer has under consideration the same sort of thing in cooperation with the American Cancer Society. Beginning with this issue, the Committee on Tuberculosis is supplying brief "filler" articles which will be used from time to time under the heading "TB Topics" to emphasize the continuing problem of tuberculosis and current means of solving it.

Tremendous strides have been made in managing tuberculosis, cardiovascular conditions, and cancer, but in none of these instances can the medical profession stand back and consider its task finished. The death rate for tuberculosis has decreased, true enough, but the number of cases of the disease has not. There are now about 25,000 tuberculosis patients in Texas who need medical care, and the number of contacts of these persons is great. Disability and death from cardiac disorders and from cancer rank high among all causes of morbidity and mortality today. Not only are the Association's committees to be commended for the active programs they have undertaken in these fields, but also rank and file doctors should take advantage of the information they have assembled so as to have an unbroken line of effective attack against these wasters of life and usefulness.

Your Grievance Committee

Is it active?

Does it function?

Is it improving public relations?

Will it take an objective view against a fellow physician?

Your county society has a grave responsibility in the appointment of a grievance committee. Upon this committee falls the important task of implementing good public relations for American medicine and the expert management of medical-social and medical-economic affairs of the community. It can, and should be, one of the most important committees of any county medical society.

The personnel of such a committee should be sincere and serious minded individuals who are not afraid to do their duty. They should be well established physicians and not concerned as to whether doing their work might affect referrals in their practice. They must be persons of integrity and honesty but not necessarily the most popular nor the most prominent individuals in the society and they should have the respect of their colleagues. They should be courageous and not fearful of taking a stand even if it proves to be unpopular and detrimental to their own welfare.

The grievance committee has a tremendous responsibility. It begins with the community, and therein lies the great opportunity to improve our public relations. It also extends to every member of the county society, the state Association, and even the American Medical Association. We can discharge this responsibility by sitting in judgment on our own. The layman is prone to look askance at a committee of physicians set up to judge the professional conduct of their fellows. Publicity will do a great deal in winning the confidence of the public. The old saying that "all physicians stick together right or wrong" no longer applies. The State Board of Medical Examiners has done much to restore the confidence of our people in physicians by throwing open their meetings to newspapers and encouraging them to print the truth. The county societies must clean their own ranks. The practice of passing the buck to a higher court is not commendable and does not reflect strength of character in dealing with our duties even though they be unpleasant.

At the same time the committee has an obligation to protect the physician who is unjustly criticized or unfairly charged with wrongdoing when he is innocent.

The patient who feels he has a grievance should have a careful and exhaustive hearing before a grievance committee. Every effort should be made first to see if an agreement cannot be reached between the physician and the complainant. No attempt will be made to go into the mechanics of a grievance committee's operational methods, but there is one word of caution. In this day of increasing law suits against physicians it is imperative that the committee should have a signed and witnessed authorization from the complainant to examine the hospital records, physician's records, and other data pertinent to the case.

After the hearing has been held, the type of report the committee makes is highly important. If the answer which the complainant receives is short, terse, and curt, such as: "We find that your case was handled in a manner consistent with the standards for medical practice in this community" or "We find the defendant physician not guilty of charges as filed," then likely the committee has not settled anything and public relations have suffered. If a committee studies a case thoroughly, it should take up the report point by point and honestly make an effort to settle the grievance. Before the case is considered closed, a conference with the complainant to discuss each point in question is in order and is justified. A short written report may be best, but one should remember there is a patient to satisfy. To whitewash a procedure of this type is worse than taking no stand at all.

The duties of a grievance committee should include recommendation of punitive action against a physician when needed, although disciplinary action is reserved to the board of censors. For the more serious offenses the censuring may be appealed to the Board of Councilors or even to the State Board of Medical Examiners.

There should be some degree of liaison between the grievance committee and the Texas Medical Association and its Board of Councilors through the district Councilor and also between the committee and the Texas State Board of Medical Examiners. This applies, of course, to the more serious cases and those in which the complainant or plaintiff is not satisfied with the effort put forth at the local level. If the grievance committee of the county society would take a firmer stand and solve its own local problems, many of these cases would not be appealed to these higher bodies.

The grievance committee does not want pity nor sympathy. Its members do want strong unswerving support from their fellow society members. Many of the problems presented require the wisdom of Solomon and the ethics of Hippocrates to solve. To do their job well the members of this committee must be fair, forcible, fearless, and be backed up with the good will and loyal support of every county society member.

—M. C. Carlisle, M.D., Waco.

Location Inspected For Medical School

Every physician in Texas has a vital interest in the provision of adequate facilities for training future physicians in Texas. Another important step was made, October 27-29, toward the doctor's aim of establishing a medical school in the developing medical center in San Antonio. A survey team of representatives from the Council on Medical Education and Hospitals of the American Medical Association and of the Association of American Medical Colleges spent two and a half days visiting the facilities and assaying the interest of the citizenship of Bexar County in such a project.

On the evening of October 27, more than 50 leaders of San Antonio's business and professional life gathered to make it clear to the visiting team that San Antonio will support the medical school and a medical center to the fullest.

The visiting medical educators were impressed and pleased with the unusual variety and abundance of facilities. San Antonio, with the greatest military medical installations in the world, will provide a background for an outstanding center for medical education.

Representatives of the Texas Commission on Higher Education also were present in San Antonio. The entire Commission later will make a recommendation to the next Legislature concerning a possible third medical branch of the University of Texas, to be located in Bexar County.

—Milford O. Rouse, M.D., Dallas.

President's Page

Can We Continue to Lead or Shall We Blindly Follow?

For many generations the physician and the organizations he represents have been leaders in matters of health. They have furnished wise counsel in many fields outside the healing arts. The doctor's educational background, his constant struggle with life and death, and his intimate association with people from all walks of life give him a broad, sympathetic understanding of many problems.

As a result of such leadership and with the cooperation of the allied professions and the rest of the citizens of America, great gains have been made in the past 50 years. The life span has been extended more than 20 years. This time lost from sickness and accident has been reduced from 27 days per person per year to less than 7 days. Many diseases that formerly took thousands of lives every year have been virtually eradicated.

Many millions of man-hours are given each year by the doctors of Texas to almost every conceivable project that promises to make his community a better, healthier place. They read about and discuss political, social, educational, economic, and religious problems, the solution of which will bring to their children either greater freedom and abundance or more controls and false promises. In one of our larger metropolitan areas a survey a few years ago indicated that more than $4,000,000 worth of work was donated by physicians for treatment of the indigent and teaching medical students. Yet such efforts are largely ignored individually. If these same efforts were pooled and the entire profession worked with intelligent planning and coordination, the same amount of expended energy would be many times more effective.

Other groups have concentrated their efforts effectively by almost convincing the public that it is entitled to total medical care. The physicians of Michigan have just completed one of the most comprehensive surveys on prepaid health insurance ever attempted in America. The facts obtained are revealing and should be studied by every physician in America.

It was found that two-thirds of the people want both major and minor medical costs covered by prepaid insurance. More than half do not favor a deductible plan of insurance. It has been proven many times that when the individual must pay minor costs for medical care and the first $25 of every hospital bill, he is less likely to demand unnecessary care. If doctors can teach people that hospital beds cost from $10,000 to $25,000 each of hard earned cash and that unnecessary medical care and hospital admissions only increase his premiums and may even price him out of the prepaid medical care market, a tremendous contribution will be made to the people of America.

The method of paying for medical care is rapidly changing. Approximately one-fourth of the people of this country can get medical care at taxpayers' expense through Medicare, the Veterans Administration, and other government programs. Although Medicare is not a year old and is designed for a limited number of people, new bills have been and will be offered to Congress to extend the same care to retired Army personnel, disabled social security recipients, and dependents of veterans. If these bills are all passed, private medical insurance will scarcely be needed because medicine will be almost totally socialized. A relatively small but well coordinated group has initiated these bills and will do their utmost to pass them through Congress. In too many instances the physicians' advice has been neither sought nor heeded, but once the acts are on the statute books many well meaning individuals among us are ready to urge the rest of the physicians to work our hearts out to make the plans succeed.

What then are we to do? We must be even more zealous in our efforts to see that everyone gets the best medical care regardless of circumstances. We must strive even harder to become better informed, more dedicated citizens. Every physician must spend time studying these bills and informing his patients of their dangers. Then he and his patients must keep the legislators informed of their desires to keep the practice of medicine in America free. We must continue work as individuals toward a better economy, but above all we must coordinate our plans and work harmoniously as a group lest we lose our influence as leaders and be left to follow blindly.

Denton Kerr

ORIGINAL ARTICLES

Therapeutic Use of Blood

A PANEL DISCUSSION

BELA HALPERT, M.D.;
MARGARET E. ZEPERNICK;
IVA L. BAGGETT, B.S., M.E.;
KENNETH L. BURDON, Ph.D.;
AUDREY A. ROBERTS, R.N.;
WALTER H. MANNHEIMER, M.D.;
WILLIAM L. WILSON, M.D.;
JAMES F. McDONALD, JR., M.D., and
CHARLES L. SPURR, M.D.

Houston, Texas

Dr. Béla Halpert: The administration of blood is at times a life-saving procedure though it is wrought with possible complications. For the past 50 years much attention has been given to discover incompatibilities between bloods of different individuals

Dr. Halpert and his co-authors gave this panel discussian at the quarterly meeting af the Veterans Administration Haspital, Houstan, Texas, January 17, 1957.

Immunohematologic factors, transfusion reactions, medical and surgical indications for transfusion, and use of blood derivatives, as well as the practices of procurement, processing, and nursing relative to therapeutic use of blood at the Veterans Administration Hospital, Houston, are covered.

and to make blood transfusion a safer procedure. In our hospital several thousand pints of blood are used each year. It behooves us, therefore, from time to time to review and bring up to date our knowledge and thinking about the procedures used. This panel consists of the persons who are concerned with the procurement, processing, prescription, and administration of blood in this hospital. We will hear first from Mrs. Zepernick, executive secretary of the blood bank.

PROCUREMENT

Margaret E. Zepernick: There was no organized blood bank operating from April, 1949, to December 31, 1951. The blood used during this period as well as that since then through 1956 is shown in table 1. Indicated in this table are the number of pints of blood that were donated each year since the operation of the blood bank. The cash value of the donated blood during the past 5 years might be estimated at $50,000. The donations, however, amounted to less than 20 per cent of the blood used. Some donations came from relatives and friends of patients receiving the blood and from donors who are in the habit of regularly donating blood. However, most productive have been the special drives organized by the Veterans of Foreign Wars and American Legion in conjunction with the Veterans Administration Voluntary Services Committee. These drives were conducted in communities such as Port Arthur, Beaumont, McAllen, and Corpus Christi, that are served by this hospital, and some industrial plants in Houston.

TABLE 1.—*Units of Blood Used, Purchased, and Donated, 1949-1956.*

Year	Units of Blood Used	Purchased	Donated
1949	1,604	1,604	—
1950	3,447	3,447	—
1951	3,530	3,530	—
1952	3,859	3,272	587
1953	3,986	3,647	339
1954	3,811	3,005	806
1955	3,741	2,567	1,174
1956	4,034	3,070	964
Total	28,012	24,142	3,870

To the community where the blood was to be collected, a medical technologist, the secretary of the blood bank, and a doctor were detailed from this hospital. The community provided the donor list through newspaper and radio publicity and contacts by telephone. Also the local committee secured volunteer services of nurses, nurses aides, receptionists, interviewers, escorts, and extra helpers. They also gave refreshments for the donors and food for the volunteers. The location of the collections, the neces-

sary furnishings, beds, linens, and other necessities as well as a clean-up crew were provided by the local committee. The collecting period was usually 4 to 6 hours and during this time 30 to 90 pints of blood were drawn. The blood was placed in a refrigerator, and when all of it was collected, the bottles were placed in insulated shipping cartons with cans of ice and sent to the hospital for processing and use. All this required a full day, starting about 8 a. m. and often lasting until after 11 p. m.

Each donor received a letter of thanks over the manager's signature and a blood donor's certificate indicating the date of donation, his blood group, and his Rh factor. Each volunteer also received a letter of thanks for his contribution. This method of collecting has its disadvantages, the principal ones being the strain on the laboratory personnel and the creation of "peaks and valleys" in the blood supply for the blood bank.

Replacement of blood by the family and friends of patients has not been exploited adequately. This should be a fruitful source of blood supply for the blood bank. It is just as important to have replacement for 1 pint as for several pints received by the same patient. Information that the patient's relatives may make such a contribution is not generally known. We ask for a replacement of 1 pint for each pint used and not for 2 as is customary. Steps are being taken to obtain more donors locally and to increase the donation of blood. However, this can be accomplished only if everyone in contact with the patient and relatives impresses on them that they help the hospital and patients by their blood donation. Sustained and increased efforts by the veterans' service organizations, appropriate publicity, and continued good public relations can be of immense value in increasing the number of blood donors to this hospital.

Dr. Halpert: The figures presented indicate that only about 20 per cent of the blood used comes from donors. It is, of course, desirable to increase the percentage of blood obtained from this source. However, this is not as cheap as it may seem. The work that is performed on the blood collected falls upon the laboratory service, which is not especially staffed for this activity. Although it is desirable that a larger percentage of the total blood used be obtained from donations, it is not our goal to eliminate the contract source, which has many advantages.

Miss Baggett, serologist in charge of our blood bank, will tell about the processing of blood for transfusion.

PROCESSING

Iva L. Baggett, B.S., M.E.: Vacuum blood bottles with attached pilot tubes are used for the collection of blood in our blood bank and by the mobile unit. Refrigerated blood can be transported safely in this manner over a 24 hour period. The major source of our blood supply is the commercial blood bank that has available an adequate and complete stock of blood with a 15 minute delivery time, day and night. These blood deliveries are made in refrigerated and insulated blood cartons. Blood received in the bank is grouped and the Rh type verified. Blood collected by our own bank is ABO grouped with two different potent and avid anti-A and anti-B serums by two technologists working independently. The blood grouping is confirmed by employing known group A and group B cells against the unknown serum, known as "reverse grouping," and by the use of anti-AB, group O serum, for the confirmation of group O blood. The Rh-Hr system, as a routine, is considered using the Fisher and Race system of nomenclature, and donor blood is typed using anti-CDE serum so that any blood that has either C, D, or E, or any combination of these, is considered Rh positive. The Rh negative blood is cde negative, being so designated. There is one subgroup of the D factor (D^u) almost as antigenic as the D factor itself. This variety may immunize the Rh negative patient, resulting in the formation of anti-D antibodies; hence, it is important to exclude D^u blood from the Rh negative list. All the Rh negative blood is labeled "D^u negative by the Coombs test."

In placing "safe" blood on the blood bank shelf, we are concerned with the dangerous universal donor O. We titer group O blood and consider it of low titer when anti-A and anti-B are below 1:200. The latest figures indicate that ABO sensitization in the newborn occurs almost 5 times as often as Rh sensitization, and that 97 per cent of transfusion reactions due to ABO incompatibilities occur in group O persons, particularly in Negroes. So, of late, the caution in transfusion services is directed equally toward the ABO and Rh-Hr systems. When only O blood is available for transfusion to either an A, B, or AB patient (in most instances Rh negative), and low-titered O blood is not available, Witebsky's group specific substance A and B is attached to the blood bottle for inclusion at the time of administration. As blood group specific substance A and blood group specific substance B are now available separately and considered safe for emergency use with the universal donor O blood, we furnish these specific substances for the specific neutralization of the blood group agglutinins. In dire emergency, when blood must be administered without crossmatching, it is considered better practice to determine the blood group and Rh type and administer the type-for-type blood without crossmatching rather than group O blood even though it be of low titer.

Compatibility studies are begun on the receipt of a "Request for Blood Transfusion, SF-518" form and

a specimen of the patient's blood labeled with full name, unit number, and ward number. The patient's ABO group is determined and his Rh type is tested with anti-D serum so that if the patient has d present he receives Rh negative blood. Each time blood is requested for a patient, his blood group and Rh type are determined from the specimen submitted. If that is 3 times a day, it is done over each time. Our crossmatching scheme includes, as a routine, saline crossmatches to determine ABO incompatibilities, and the rare agglutinins to M, N, and P; these are the so-called major and minor crossmatches. The high protein crossmatch and the anti–human globulin, or Coombs crossmatch, complete the scheme. These methods are used to test for warm agglutinins to antigens of the Rh system and similar antibodies to other factors, which also are frequently of the incomplete variety and do not produce clumping of saline suspended erythrocytes. High protein methods of crossmatching have proved reliable in the majority of instances. The addition of 30 per cent human or bovine albumin in amounts to make a final protein concentration of 15 to 20 per cent increases the intensity of clumping by incomplete antibodies encountered in many patients. The anti–human globulin Coombs crossmatch is used to insure compatibility in special transfusion problems as certain incompatibilities such as those resulting from sensitization to the Duffy and Kidd antigens can be detected only by the anti-globulin test. We endeavor to perform Coombs crossmatches for patients receiving multiple transfusions, but time is the factor in this case and it is our goal to perform Coombs crossmatches on all bloods transfused. So, for crossmatches to be adequate and complete, a minimum of 40 minutes is required, and the Coombs crossmatch increases this time to 1 hour. Short crossmatches of 5 to 10 minutes are noted on the "SF-518" and indicate the incompleteness of the compatibility study; though the crossmatch is completed for the laboratory record.

One of the latest and best aids to the transfusion service is the so-called Pan-O-Cell (Panel of O Cells, Master List), as offered by one group of workers. Since we can now identify 26 antibodies with antiserums available, and since 206 have been identified as of today (there is even one V, which is found in Negroes), we welcome the use of this "outstanding panel of 8 carefully selected group O cell suspensions" which completely type the difficult and unusual cases, the reactors. Reactions reported, however slight, are tested with the Pan-O-Cell, and we are able to furnish "better blood" for subsequent transfusions.

Blood matched for a patient is kept on the shelf for 48 hours unless marked "Hold" or "On Call" for 72 hours. After this time it is reclaimed to be rematched possibly for the same patient, or used for another patient before it becomes too old. There is one other factor, probably the most important, the "human or H^u factor." "This one will kill you," warned the Texas Society of Pathologists in the *Texas State Journal of Medicine.* A very small percentage of the mistakes are technical inaccuracies; transfusion accidents are mostly due to the "H^u factor."

As the more unusual requests are time consuming and must be fitted into the routine, the blood bank should be alerted for: packed red blood cells which are concentrated at the time of issuance to the ward; fresh blood in silicone treated bottles collected by the gravity method, which is reputed to give the best supply of platelets, platelet enriched plasma, and platelet transfusions per se, furnished in plastic bags; and washed red blood cells.

Dr. Halpert: The laboratory service performs with painstaking accuracy all the known tests with all the precautions to provide the patient with the kind of blood that is compatible with his. It is, therefore, little to ask the doctor and the nurse and those who are directly concerned with the immediate administration of the blood to check and make sure that the right patient gets the right blood.

Next, we will hear from Dr. Burdon, our consultant in microbiology and authority on immunologic problems, who will tell us about newer immunohematologic factors related to blood transfusion: Rh-Hr factors and the Coombs anti–human globulin test.

IMMUNOHEMATOLOGIC FACTORS

Kenneth L. Burdon, Ph.D.: Basically, incompatibilities among individual human bloods arise because of the multiplicity of specific antigenic components that erythrocytes may possess or acquire and toward which antibodies may be present or may be formed. The danger to the patient from the administration by transfusion of an incompatible blood is due principally to the fact that red blood cells are highly susceptible to hemolysis through an antigen-antibody reaction. When only about one-fiftieth of their cell surface is coated with an antibody specific for one of the cell antigens, this is sufficient to activate complement, resulting in damage to the erythrocytes and the release of their hemoglobin. This occurs even if the antibody concerned is of the imperfect (incomplete or univalent) type.

Following the discovery of the four basic human blood groups (constituting the ABO system) by Landsteiner and associates (1900-1902), and the establishment of blood typing as a routine procedure prior to transfusion, the incidence of hemolytic transfusion reactions was sharply reduced, of course. A certain number of untoward reactions were still ob-

served, however. Some of these were traced to variations in the A antigen, others to the use of group O blood from a donor whose serum contained too high a content of anti-A and anti-B antibodies. Cross-matching revealed, however, that many reactions must be due to intragroup incompatibilities. The most important specific blood factor responsible remained unrecognized until 1940-1941, when Landsteiner and Wiener described the Rh factor, and Wiener and Levine, with their collaborators, independently established the clinical significance of this new antigen in relation to transfusion reactions in adults and erythroblastosis in infants.

It was soon found that we had to deal not only with the original, newly discovered Rh factor, but with a group of genetically related antigenic components of red blood cells, constituting the Rh-Hr system. At present, the nomenclature introduced by Fisher and Race (1946) is widely adopted. Letter symbols (C, D, and E, and c, d, and e) are used for antigenic factors in the red blood cells; these stand also for the genes concerned in the hereditary transmission of these antigens.

The capital letters C, D, and E represent the Rh factors formerly designated Rh_0, Rh′, and Rh″, respectively; these exist in reciprocal relationship to the Hr factors: small c, d, and e, corresponding to those formerly labeled Hr_0, hr′, and hr″, respectively. The erythrocytes of every person contain at least one (or both) of each of the three pairs of antigens D, d; C, c; E, e. One chromosome carrying these genes is inherited from each parent; thus, a person may be homozygous or heterozygous with respect to any one of the Rh-Hr factors.

It is important to note that antibodies for the Rh-Hr factors do not exist naturally in human bloods. Such antibodies are always produced as a result of transfusion, or injection of blood, or escape of the mother's erythrocytes into the body of the fetus. The antibodies which appear in the recipient of this strange blood are specific for antigenic factors in the foreign red blood cells which are absent in the person's own erythrocytes.

Fortunately there is a marked difference in antigenicity (antibody-producing power) of the different blood factors, and hence in the frequency each is likely to be involved in serious transfusion reactions. Antigen D Rh_0, the original Rh component) is the most antigenic, and the one concerned in about 90 per cent of post-transfusion reactions. Sensitization of Rh negative persons to the D factor occurs when they are transfused with Rh positive blood, or otherwise come in contact with such blood, as by receiving an intramuscular injection, or during repeated pregnancies with an Rh positive fetus. Rh positive persons are sometimes sensitized to one of the Hr factors (such as c) by similar contacts with an Rh negative blood. In the complex Rh-Hr system Wiener lists 18 major types, and numerous subtypes, of identifiable antigens that may be involved in transfusion reactions. Most important, aside from D and c, are E, and variants of C (C^w, C^u, C^v) and of D (D^u). Antigenic components of human erythrocytes, not included in the Rh-Hr system, such as the Kell-Cellano and Duffy factors, have been shown to be responsible for occasional transfusion reactions. Levine has stated that, as a result of possible isosensitization, a single blood sample may be incompatible with as many as 1,000 different samples.

Obviously the prevention of hemolytic reactions depends upon the ability to detect these various red cell antibody reactions by laboratory tests. In practice, it has often been found difficult to demonstrate intragroup incompatibilities involving some of the Rh-Hr factors. The difficulty arises principally from the fact that the antibodies formed in response to sensitization by the various erythrocyte antigens are often of the so-called incomplete type. These antibodies when absorbed onto the surface of the red blood cells do not change the character of that surface sufficiently to allow agglutination to occur in an ordinary saline suspension, as "complete" or bivalent antibodies would do. However, agglutination may take place if the erythrocytes are suspended in an albumin solution. Hence tests for Rh or Hr antibodies must be carried out both in saline and in albumin solutions. Even so, tests are not always positive by these methods when there is good reason to believe that antibodies actually are present. This has been the stimulus for development of still more sensitive tests, particularly the Coombs anti–human globulin test.

The Coombs test involves agglutination of human red blood cells that have become coated with antibody globulin, by the action of a rabbit anti–human globulin serum. Coombs antiglobulin serum is prepared by injecting human serum globulin into rabbits. The serum from the immunized rabbit is inactivated, then absorbed repeatedly with washed human erythrocytes of all types until the undiluted rabbit serum no longer reacts with washed normal human red blood cells. This absorbed rabbit serum, containing antibodies specific for human globulin, is the principal reagent of the Coombs tests and is now ready for use.

To demonstrate directly the presence of Rh or Hr antibodies (that is, immune human globulin) on a patient's red blood cells, these cells, in saline suspension, are mixed with the Coombs anti–human globulin serum. After a few minutes' incubation, agglutination will occur. Or, by an indirect procedure, Rh positive cells are incubated in the presence of a patient's serum containing Rh antibodies until the antibodies become fixed upon the surface of the cells.

Then those prepared cells (after washing) are mixed with Coombs antiglobulin serum. Again, agglutination should occur.

The Coombs test has a number of limitations and requires meticulous attention to numerous details of technique.

The use of trypsin-treated red cells, introduced in 1947, adds another sensitive technique for demonstrating either complete or incomplete antibodies.

Routine Rh testing (for the presence of the Rh_0 or D factor) in a donor's blood before transfusions should be supplemented, in the case of donors found to be Rh_0 (D) negative, by further tests for factors C and E, and for D^u. Only when a blood is negative for all these factors should it be considered "Rh negative" for purposes of transfusion. Also, tests of donor and recipient's cells by available anti-Rh and anti-Hr serums should be carried out when the intended recipient has had previous transfusion reactions, or when crossmatching reveals unexplained incompatibilities.

Dr. Halpert: The administration of human blood to patients is a team procedure and in that team nursing service plays an important role. Mrs. Roberts, surgical supervisor, will tell us about the responsibilities of nursing service in connection with blood transfusions.

NURSING RESPONSIBILITIES

Audrey A. Roberts, R.N.: When a physician writes a request for typing and crossmatching of blood for transfusion, the request is referred to the ward secretary, who prepares the required number of "Request for Blood Transfusion, SF-518" forms (1 original and carbon for each 500 cc.). She stamps with the addressograph plate the patient's name, unit number, and ward number and fills in other information as to date and hour the blood is desired and the diagnosis. Forms are delivered to the ward nurse and referred to the requesting physician for checking and signature. The ward nurse verifies the accuracy and legibility of the patient's name and number on each form. If there is any discrepancy in name or number, blood will not be released by the blood bank; therefore, requests that are not legible cannot be accepted.

If the patient is able, he will be sent with his forms to the blood bank. If not, the blood specimen must accompany the requests. In this case the patient is identified by two persons, the physician or technician securing the specimen and the ward nurse. Veterans Administration nurses may not perform vein punctures; consequently the nurse does not secure the specimen. The person who secures the specimen must label it clearly with the patient's name, unit number, and ward number.

If blood is to be given on the ward, the nurse notifies the physician when it is ready and will procure only the amount that is to be given right away. Blood may not be stored in ward refrigerators and may not be off blood bank refrigeration for more than 20 minutes prior to administration. When blood is to be given during a surgical procedure, all blood available for each patient scheduled for the day is procured and stored in the refrigerator of the operating room. All unused blood is returned to the blood bank at 4:30 p. m.

Before starting a transfusion two persons, usually the physician and nurse, examine the papers together in order to verify grouping, typing and crossmatching record, name or number of donor, full name, unit number, and actual identity of the recipient. Both sign the attached SF-518 with carbon still attached. Nurses may not administer blood. They may add additional bottles of blood only if the physician is present or is in the immediate vicinity to care for reactions if they occur. Verification of each succeeding unit of blood is also made by two persons.

The nurse observes the patient closely during and following a transfusion and notifies the physician immediately if there are signs of reaction. In case of reaction, the bottle with the tubing attached is returned promptly to the blood bank along with the carbon of "SF-518" showing details of reaction. The nurse initiates the required VA form 10-2633, "Report of Injury of Beneficiary." Upon request of the physician, urine specimens are collected at 4 hour intervals for 12 hours to be examined for hemoglobin. All completed original "SF-518's" are placed in the clinical record. The nurse's notes include notations of blood transfusion and any pertinent observations.

All empty bottles with carbons of "SF-518" attached are returned from the ward or from the operating room to the blood bank by 9:30 a. m. each morning. If for any reason blood has been incompletely administered, it is kept sterile and returned immediately to the blood bank with the circumstances noted on the carbon of the "SF-518."

Dr. Halpert: The most dramatic need and use of blood occurs during surgical operations. Dr. Mannheimer, chief of anesthesiology, will tell us about the use of blood during surgical procedures.

BLOOD DURING SURGERY

Dr. Walter H. Mannheimer: The achievements in modern major surgery could not have been accomplished were it not for the advances in anesthesia and in blood banking.

In a discussion of any therapeutic agent prevention

is to be considered first. Obviously blood loss cannot be prevented in conditions like ruptured ectopic pregnancy or a bleeding gastric ulcer. There are, however, involved surgical procedures associated with excessive blood loss in which prophylactic use of hypotensive anesthesia may be indicated. The fact that hypotension can be utilized to prevent blood loss demonstrates that hypotension, per se, during a surgical procedure is not automatically an indication for alarm, blood transfusion, or other active therapy. If hypotension is associated with physical signs such as a warm and pink skin, a slow pulse, dilated veins, and absence of sweating, the patient can afford a period of hypotension unless there is known coronary insufficiency or renal or cerebrovascular disease. This then is one form of hypotension that does not necessitate immediate transfusion.

What are the indications for blood transfusion before and during surgical procedures? Other forms of hypotension, those with contracted blood volume. Is the surgical procedure always to be delayed until the blood pressure has been raised to normal by means of one or more blood transfusions? The answer is "No." There are conditions which cannot benefit by waiting even though the waiting is for the transfusion to take effect. The hemorrhage must be stopped surgically before the blood pressure rallies in such conditions as ruptured ectopic pregnancy or a fulminating peritonitis due to a perforated viscus. Delay in such instances will make the shock irreversible. Surgical correction of the cause—for instance, ligation of a spurting artery in a ruptured fallopian tube —will effect an improvement that is often dramatic.

Ordinarily, blood should be replaced before the operation starts. Loss of one-third of the normal blood volume results in shock, especially during anesthesia. Loss of one-half of the blood volume results in severe shock or death. Yet, in young healthy persons the blood pressure is often not a reliable guide to the amount of blood lost. Often it remains fairly compensated and causes confusion because a patient may have a fairly normal pressure though he lost 1, 2, or even 3 pints of blood.

What are reliable signs of blood loss requiring transfusion? The quality of the pulse, that is usually rapid, and the general appearance of the patient who is sweating, pale, cold, and complains of thirst and air hunger. Another valuable objective sign in the evaluation of the patient's circulation, especially during anesthesia, is the skin response to blanching pressure. When it is prompt, that is a better sign than sluggish capillary refilling in the blanched area.

Blood pressure readings can be a fairly reliable estimate of the degree of shock, if considered from a dynamic rather than a static point of view. A single blood pressure reading of 80/60 may look alarming, but if the trend of the pressure over a period of time is up, it may allow the conclusion that the operation can be begun before the blood pressure has returned to normal. In other words, a blood pressure of 80/60 that 10 minutes before had been 70/60 is preferable to a reading of 80/60 that 10 minutes before had been 90/60.

Cyanosis is never a sign of blood loss. A patient who is anemic cannot even become cyanotic. It takes at least 5 Gm. of unoxygenated hemoglobin to show any cyanosis. A patient with a hemoglobin of 6 Gm. would need more than 80 per cent desaturation of his blood to show any cyanosis; his blood would be only 20 per cent oxygenated before he would get blue.

Laboratory findings may likewise be misleading: Before blood dilution by the body's fluids is complete, the blood count, hemoglobin, and hematocrit appear normal in the face of a low blood volume. This dilution may take many hours, particularly during anesthesia. Therefore, blood volume determinations are the only reliable method of ascertaining blood loss. Such determinations are not always feasible, and clinical judgment considering the general appearance of the patient and the extent of disease, injury, or surgery will have to make up for more involved laboratory procedures.

The principal indication for transfusions is blood loss. Other indications are the increase of the oxygen-carrying capacity of the blood in chronic anemia, or chronically contracted blood volume caused by prolonged vomiting, diarrhea, gastrointestinal bleeding, liver disease, or malnutrition. The belief that blood transfusions are contraindicated in chronic bleeders (such as gastric ulcers) is a fallacy. When blood is lost by whatever mechanism, it must be replaced.

There is one indication that applies mostly in anesthesia, namely, the raising of cholinesterase level in the blood. Occasionally even an average dose of succinylcholine, a commonly used curare-like drug, will effect paralysis and apnea of prolonged duration. This may occur in patients with liver disease, in starvation, or after massive transfusion or exchange transfusions. Transfused blood, if old, does not contain much cholinesterase. There is no antidote against the depolarizing muscle relaxants. A healthy body contains enough cholinesterase to destroy enormous amounts of both acetylcholine and succinylcholine. A transfusion of fresh blood containing this enzyme is often the only means to stop an apnea caused by an absolute or relative overdose of succinylcholine, because cholinesterase is not commercially available.

Contraindications to blood transfusions are, besides the obvious one of not having a well organized blood bank available, the following: pulmonary edema, pneumonia, cardiac decompensation including constrictive pericarditis, and advanced bilateral renal disease. It has happened that 1 or 2 units of blood had to be withdrawn after operation because of incipient or manifest pulmonary edema. Apart from these con-

traindications one should keep in mind that transfused blood is a foreign body and that it may cause reactions. These are difficult to recognize during anesthesia when there are no subjective symptoms. The only sign may be a fall of blood pressure and rise in pulse, in other words, the development of shock. This may be associated with diffuse bleeding from the wound and from tissues. Often such intractable oozing is the only sign of transfusion of incompatible blood. Rash, chills, and fever are often absent and are not primarily diagnostic of a true reaction. The problem of citric acid poisoning during massive transfusion has been considered from time to time. Exchange transfusion techniques and operations on the heart and great vessels with transfusions of enormous amounts of blood have revived this problem lately. Very rapid transfusion of large amounts of blood results in an elevated citrate level and a lowered level of the ionized calcium. This may result in tetany, increased oozing, and cardiac depression. The latter may entail persistent hypotension which does not respond to transfusions nor vasoconstrictor drugs. In such cases it may be preferable to transfuse decalcified blood collected by passage across a cation exchange resin or to use an infusion of packed red blood cells reconstituted in normal saline solution.

As to the technique of administration of blood, direct transfusions have been abandoned. The gravity method of transfusion of citrated blood is universally employed. The transfusion is ordinarily given intravenously, though intra-arterial transfusions have been used for a period of time. Since the capacity of the arterial tree is so much smaller than the venous bed, it was thought that better coronary filling is accomplished by the retrograde method of arterial transfusion. Likewise, rapid overloading of the heart with rising venous pressure and precipitation of congestive failure during intravenous transfusion was supposedly avoided by the intra-arterial route because much less blood was infused.

It is possible to transfuse considerable amounts of blood into the bone marrow, though this method is not feasible when transfusions of large amounts are needed in a short period of time.

The dose and rate of administration varies with the demand. The red blood cell count is raised by 500,000 per cubic millimeter with each 500 cc. of blood administered. For cases other than acute hemorrhage the average dose both for adult and child is about 3 cc. to 5 cc. per pound given at a rate of about 1 pint per hour for adults and about 50 cc. per hour for an infant of 15 pounds. The only way to estimate blood loss during a surgical procedure besides blood volume determinations is by weighing the sponges and inspecting the suction bottle. All lost blood should be replaced with the possible exception of loss during pneumonectomies where a temporary reduction of the pulmonary vascular bed exists. As to the rate of administration, 500 or 1,000 cc. can be given in 5 minutes if necessary by positive pressure. This necessitates precautions to avoid air embolism. In chest or cardiovascular operations more than one vein is being utilized and readied for transfusion and one person is delegated to serve exclusively as transfusionist.

Complications of transfusions such as the ever existing possibility of administering the right blood to the wrong patient or the wrong blood to the right patient must be avoided as well as complications of air embolism, pulmonary edema, citric acid poisoning, and overloading of the vascular bed.

Dr. Halpert: It is obvious that the anesthesist plays an important role in the surgical team in keeping the patient alive while the surgical procedure is going on and after it is completed.

With all the precautions taken in the laboratory and otherwise to provide the blood that is compatible with that of the recipient and with all the laboratory procedures that safeguard against accidents, such still happen and reactions occur. Dr. Wilson will tell us about blood transfusion reactions.

TRANSFUSION REACTIONS

Dr. William L. Wilson: Transfusion reactions may be divided into minor reactions, for want of a better name, and into hemolytic reactions which are more likely to present difficulties. Among the minor reactions should be included the febrile responses, like fever of only short duration. There are also those in which urticaria will be the only manifestation. The causes of these minor reactions vary and cannot be categorized from the type of reaction seen. The febrile response may well be due to bacteria which, as recently shown, may grow in blood bank refrigerators. However, these organisms are usually not pathogenic, and a short febrile response is often the only manifestation they produce.

The urticarial reaction may have several causes. One is that the donor may have eaten within a short time prior to donating blood, and therefore the recipient will manifest urticaria from some metabolic breakdown product.

The reaction in patients who receive multiple transfusions is usually due to plasma sensitivity and is often characterized by both fever and urticaria. This can be overcome by using washed red blood cells and can be tested by taking plasma from a bottle of donor blood and injecting it intravenously to see if a typical response appears. If a response is obtained and the patient manifests reaction to plasma, washed red cells are indicated but should be used with caution. To wash red blood cells is a time con-

suming process, and there is a danger of contamination as the bottle has to be entered on several occasions. There is a small group of patients who will manifest urticaria to a transfusion even though the patient has not had a previous transfusion. This can be controlled easily by giving benadryl intramuscularly. In the past, benadryl has been added directly to the blood; however, this is not considered safe. It has been shown that benadryl will lyse some of the red blood cells. When used, benadryl should be given to the patient intramuscularly approximately 2 hours before transfusion.

The hemolytic group of reactions is what we are primarily interested in. These may be due to any of the factors that have been previously mentioned, and these are numerous. The most serious ones are the ABO group, the Rh and Hr antibodies, and the Kell-Duffy groups. To my knowledge, in this hospital we have had trouble only with the ABO and the Rh and Hr groups.

I would like to comment on the terminology concerning the types of antibodies. One article speaks of "saline antibodies" and "albumin antibodies" while another of "natural antibodies" and "immune antibodies." In the previous talks on crossmatching there were "saline antibodies"; that is the usual ABO nomenclature, but those are also referred to as "natural antibodies." The "immune antibodies," also called "albumin antibodies," are more likely to cause difficulty in transfusion. This is where trouble may arise from using a universal group O donor. He may have a normal titer of saline antibodies but a very high titer of the antibodies that appear only when the red blood cells have been coated with albumin.

In giving a transfusion, the time that the hemolytic reaction will probably occur will be in the first 15 or 20 minutes. If the patient is observed more than casually during this period by either a nurse or physician and does well, there probably will be no further difficulty. Delayed reactions occur and can be quite serious but are infrequent compared to those during the initial part of the transfusion period.

If the patient has a hemolytic reaction, the main treatment is for shock and for lower nephron nephrosis. It has been suggested that these patients be given large doses of alkali. This is based on the concept that there is precipitation of acid hematin crystals in the renal tubules. However, in patients with oliguria following hemolytic reaction the urine is already alkaline; therefore, the alkali probably will be of no value. If a patient has a hemolytic reaction, one should make sure that the pilot tube on the bottle of blood, the bottle of blood, and the patient are retyped. The bottle of blood should be cultured for possible contamination. Also, the blood and serum should be recrossmatched. Urine and plasma should be saved for hemoglobin determinations. The bilirubin should be followed for the degree of hemolysis, and the blood urea nitrogen will serve as a measure of the amount of renal damage.

Dr. Halpert: We still have two important subjects to cover. One of these, the medical indications for blood transfusion, will be given by Dr. McDonald.

MEDICAL INDICATIONS FOR TRANSFUSION

Dr. James F. McDonald, Jr.: The principal medical indications for blood transfusion are restoration of blood volume after hemorrhage, or in shock from trauma or burns; the maintenance of an adequate hemoglobin level in anemias which cannot be expected to respond to specific measures such as iron, vitamin B_{12}, and folic acid, or alternatively in anemias due to some underlying disease which cannot be treated effectively; and the use of blood for whatever specific substances may be in it, such as antihemophilic globulin and platelets. Since Dr. Spurr will comment on the last of these three indications, I will confine my attention to the first two.

We have to be cautious at all times against the twin dangers of using either too much or too little blood. When faced with the first of these indications, that is, restoration of blood volume after hemorrhage or in treating shock from whatever cause, we are likely to err on the side of giving too little blood since it is easy to underestimate the degree of hypovolemia present. As we know, it is possible to diminish blood volume by 20 to 25 per cent before such overt signs of shock as hypotension in the recumbent patient or even marked tachycardia occur; and so we have to be particularly alert to detect the more occult signs of blood loss, which have been well described by Dr. Mannheimer.

In the second connection, the maintenance of an adequate hemoglobin in the face of otherwise untreatable anemias, I think we are perhaps prone to the opposite mistake. Blood is often used more lavishly than is necessary or desirable. Dr. Wilson has discussed the variety of untoward reactions, sometimes hazardous and even catastrophic, which can occur with the use of blood. In this connection it is a curious fact that Wintrobe's "Textbook of Hematology" has 2 pages on the general discussion of indications for blood transfusion and about half a page on the beneficial effects of blood transfusion but 11 pages on possible undesirable reactions to blood transfusion. I mention this only to emphasize that in using blood and, above all, in using blood for the treatment of chronic anemias, the physician must weigh very carefully possible benefits against potential dangers. In treating acute hemolytic anemias blood must be used gingerly. This is true, I suppose, of all acute hemolytic anemias, but particularly those

which are extrinsic or extracellular in origin, that is to say, when hemolysis occurs not because of some defect in the red blood cell, but rather because of some abnormal serum factor. Obviously, such a serum factor is capable of destroying not only recipient but donor cells with the double effect that, on the one hand, the purpose of transfusion is defeated and, on the other, the hazard of transfusion is greatly enhanced. The remark often has been made that all generalizations are untrue, including this one, and it should be pointed out that obviously we are sometimes faced with situations in which hemolysis occurs so rapidly that we have to accept the risk of transfusion as being less than the direct threat of death from hemolysis. However, often enough if we can temporize, a balance may be struck between blood regeneration and blood destruction which pitches the hemoglobin, as it were, at a level which, while suboptimal, is nevertheless capable of sustaining life and maintaining the patient in reasonable comfort.

In treating chronic hemolytic anemias blood transfusion is not frequently indicated. We see many patients with sickle cell disease and similar things who go along with a hemoglobin level of 7 or 8 Gm. and sometimes even lower; they get along as well as can be expected, and blood transfusion confers no real or lasting benefit.

In the slowly developing anemias due to deficiencies of various substances, iron, folic acid, vitamin B_{12}—that is to say, pernicious anemia, sprue, and that whole class of anemias—transfusion is almost never indicated, and when it is, it is not for the anemia per se but for some complication. If, for instance, a patient with pernicious anemia who has perhaps 5 or 6 Gm. of hemoglobin has to be operated on, then an indication for transfusion would exist, but for the anemia per se, blood is almost never indicated.

In those numerous chronic anemias due to some underlying disease—chronic infection, chronic nephritis, renal insufficiency, and so forth—there are only two methods of therapy; one, of course, is successful attack on whatever disease process underlies the anemia and the other is transfusion. Often we find ourselves in the position of being unable to treat successfully the underlying disease, and then we have to resort to transfusion; we have no choice. The same remarks apply to aplastic anemia. In the aplastic anemias our hand is forced—we have nothing to do other than to transfuse the patient in order to keep him going, so to speak, in the hope that there may be spontaneous remission of whatever disease process is causing the bone marrow aplasia or, failing this, to keep the patient in as much comfort as possible during what time remains to him.

The anemia of leukemia we regard by and large as preponderantly hemolytic in origin; certainly in chronic lymphatic leukemias the anemia is usually hemolytic; and we handle these anemias much as we handle other chronic hemolytic anemias. In acute leukemias we try to keep the hemoglobin level at about 11 Gm., in chronic leukemias we aim at a somewhat lower level. It might be thought offhand that blood transfusion would be indicated in granulocytopenia, but granulocytes have an extremely short survival after withdrawal from the donor's blood stream, and therefore the use of transfusion for supplying absent white blood cells is purposeless.

Dr. Halpert: Conservatism in the use of blood is commendable. Apparently, we often underestimate the bone marrow's capacity for supplying some of the needed cells and are rushing and overdo the administration of blood.

The last speaker on our panel is Dr. Spurr, who will tell us about the therapeutic use of blood derivatives.

BLOOD DERIVATIVES

Dr. Charles L. Spurr: There are about eight blood derivatives used commonly. I will list these and mention a few of the advantages and disadvantages of their use. The first have already been referred to, the red blood cells per se, either washed or packed. This has the advantage of giving hemoglobin in small volume and thereby not overexpanding the patient's total blood volume with the consequent complications which may ensue. This is particularly important in the aged and in persons who have had sudden loss of blood. The technique, however, is fraught with dangers. It must be remembered that the agglutinogens are not removed and that the exposure of the blood may introduce bacteria, as has been mentioned already. Studies are under way to improve the preparation of red blood cells for transfusion by freeze-dry technique with protective solutions such as dextran.

The second most commonly used blood derivative is plasma. This has fallen into some disrepute recently and has its use primarily in replacing blood volume rapidly. Its chief disadvantage, however, is that it may contain the causative agent of disease, particularly hepatitis. Efforts to remove this hazard have not been entirely successful. The greatest danger of infection is from the person who is a donor for a commercial blood bank. The results of efforts to use radiation have been controversial. Some investigators believe that ultraviolet irradiation is effective; others believe it to be ineffective. One of the approaches that has been sponsored by J. G. Allen is the storage of plasma, and in his limited study it appeared that the infectious agent was destroyed in storage. Many of the manufacturers now are seizing upon this and point out that it is some months between the time their plasma is prepared and delivered. The chief advantage of plasma is its immediate

availability. Plasma is being increasingly displaced by dextran solutions, and it appears that in the future plasma will be used more conservatively. Plasma is occasionally used to increase the oncotic pressure of the blood in an attempt to mobilize extracellular fluid. This is, however, of only transitory benefit.

The third blood derivative is albumin. Purification and separation of the plasma components is one of the outgrowths of the work of Cohn and his team at Harvard during the war. They have developed techniques, most of them a combination of organic solvent and buffer plus the use of temperature, in the differential separation of the plasma components. Albumin has been used and accepted widely, and because it can be prepared in a salt free preparation, it is free of the pyrogenic agents that may be absorbed in the globulins and it, too, can exert a strong oncotic effect rapidly. It should not be regarded as a nutritionally effective method of replacing plasma proteins. This has been demonstrated repeatedly, especially in nephrotic patients in whom protein loss may be rapid.

The fourth derivative is platelets. The use of platelets is one of the striking advances in transfusion technique. This, too, has been referred to earlier. From a practical point of view the use of silicone protected equipment or the use of plastic bags has had the advantage of protecting the platelets from agglutination and thereby maintaining the coagulation system as it was in the circulation. Another improvement has been the use of platelet concentrates. These have the disadvantage, however, of being rather laborious in preparation, and it is doubtful whether this labor is indicated in view of the simplicity of the use of siliconed equipment.

This, then, is a technique which would be used to control bleeding in the bleeding dyscrasias, and it is restricted to acute situations. The reason for this is that there are at least 11 and possibly more platelet types, and immunization against these types will lead to further thrombocytopenia; our experience corroborates this. We had one patient who usually had a platelet count of around 10,000; however, he did not bleed and that seems to be one of the things that has been observed repeatedly in these patients who develop platelet agglutinins in this manner.

The fifth blood derivative widely used and very important is fibrinogen. This is particularly important in obstetrical practice where occasionally fibrinolytic hemorrhagic disease has occurred, thought to be related to disease of the placenta releasing fibrinolysin into the circulation. In these patients fibrinogen can neutralize the fibrinolysin and correct the disorder in a matter of minutes.

The sixth substance that has been used rather widely is thrombin. As commercially available, thrombin is from bovine blood and is used only in topical application. Human thrombin has never been widely prepared.

The seventh substance is the globulins. The primary globulin in the control of bleeding is the so-called antihemophilic globulin. This was one of the discoveries of the Cohn laboratory during World War II and was used extensively at that time and in the few years following. The disadvantage in the purified state is not only the expense but also that with prolonged use the patient may develop circulating anticoagulant. Most commonly, fresh lyophilized plasma is used to give the antihemophilic globulin effect. This material should be used to stop bleeding but not to maintain the clotting time at normal. These persons have a prolonged clotting time throughout life, and we cannot expect to give them enough lyophilized plasma to keep this clotting time near normal; it is used to bring the bleeding under control.

The eighth item and most widely used perhaps is the gamma globulins. The most compelling indication for the use of gamma globulin is in the newly pregnant woman who has been exposed to rubella. Here it should be given because of the possible complication of the child developing congenital cataracts if the mother contracts the disease. It is also used both as a prophylactic in mumps and poliomyelitis, and has been used in infectious hepatitis.

Dr. Halpert: Before closing, I would like to thank everyone on the panel for his efforts and for his learned presentation and also want to thank the audience for its patience.

Dr. Halpert, 2002 Holcombe Blvd., Houston 31.

Reversionary Trusts Save Doctors' Money

The reversionary trust is available to doctors who would like to reduce their federal income tax by investing their money in a trust that would make the income payable to and taxable to the beneficiary. The reversionary trust differs from the standard trust in that the body of the trust reverts back to the donor after a period that cannot be less than 10 years.

The trust enables a person who does not need the income from investments to divert that income to a beneficiary for a period not less than 10 years, and, after that time, receive back his original investment. The beneficiary also is made responsible for the tax meaning there will be no tax at all because of the beneficiary's normal tax exemption. The trust is ideal for parents with young children who will later go to college and for those who have dependents with little or no income of their own.

Trusts of at least $5,000 are advisable for there is usually a minimum charge made for the administrative work of the trust officer (usually between $25 or $50 annually). The donor should select a trust with care for investments that results in lower taxes usually are carefully examined by the Internal Revenue Department.

Further information may be obtained by writing Dow Theory Forecasts, Inc., Hammond, Indiana.

Protein Nutrition In Pregnancy

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IT IS THE PURPOSE of this paper to reemphasize the extreme importance of protein in the diet of the pregnant woman and to suggest one method that may improve the nutritional status of such persons. Certainly, the adult pregnant woman faces a truly formidable task to meet the requirements for tissue synthesis demanded of her. It has been estimated that a woman bearing and nursing six children between puberty and age 45 years will have synthesized the equivalent of 100 per cent of her body weight.[1] The obstetrician must be cognizant of the nutritional status of his patient and make every effort to avoid complications which might result from nutritional deficits. Whereas the importance of adequate calories, fats, vitamins, and minerals is not to be minimized, their inclusion in the average diet of pregnancy is more easily attainable than the necessary high quality protein.

The administration of a lysine-vitamin preparation is found to be a valuable aid for the obstetric patient. In a controlled random series, those given the dietary supplement had significantly higher mean levels of hemoglobin throughout pregnancy and at 3 days post partum, did not develop signs of preeclampsia, and demonstrated impressive relief of chronic fatigue and increased feeling of well being.

The importance of an adequate intake of protein in the diet of a pregnant woman has been long recognized. In 1887, Charpentier agreed with others that a low albumin level in the blood was responsible for eclampsia. The role of protein in eclampsia and other toxemias of pregnancy remains controversial, but there is increasing evidence, on the basis of large, statistically significant series, that hypoproteinemia is an important contributory factor in such complications. Holmes[2] found the toxemia incidence of a group of women taking low protein diets to be twice that of a similar group on high protein diets. Tompkins[3] emphasized the frequency of protein and vitamin deficiencies in women. He found in a series of 654 unselected pregnancy cases that the average protein daily intake was 55 Gm. In a control group of 170 women receiving 65 Gm. of protein per day, there was a 4.12 per cent incidence of toxemia. A second group receiving 115 Gm. of protein daily showed only a 0.63 per cent incidence. The importance of an adequate nutritional status both during pregnancy and prior to its onset was stressed. Mention also should be made of the excellent presentations on this subject by Burke and his associates.[4, 5, 6, 7, 8] They not only demonstrated the relationship of protein to pregnancy but presented data on the influence of an adequate protein diet on the condition of the infant. Less than 75 Gm. of protein daily during the latter part of pregnancy was reported to result in children who were shorter and lighter and who had a low pediatric rating. The diet of the mother, therefore, is of importance not only to the progress of the pregnancy but also to the health of the infant.[9, 10]

A high protein diet is important in other respects to the obstetrician in private practice. Cannon and his associates[11, 12] in their experiments demonstrated that adult animals subjected to prolonged protein undernutrition exhibited a profound decrease in their antibody formation and resistance to infection. Since antibodies are produced from gamma globulins which in turn are synthesized from polypeptides, such a finding is not surprising. Resistance to infection depends largely on the supply of phagocytes in the blood, and both low quality and low quantity protein has been shown to depress phagocytosis in growing rats.[13, 14] Increased susceptibility to shock[15, 16] and delayed wound healing[17] also have been attributed to the presence of hypoproteinemia.

Unfortunately, although the need for adequate protein in the diet of the pregnant woman is well recognized, no unanimity of opinion exists regarding the optimum daily requirements. Amounts from 70 to 120 Gm. daily are recommended,[18, 19, 20] with the National Research Council[21] suggesting 80 Gm. daily in the third trimester of pregnancy and 100 Gm. during lactation. It should be noted, however, that these recommendations apply only to persons in a good nutritional state. Since it has been shown that only 10 per cent of the women in one series were consuming 85 Gm. or more of protein during their initial obstetric visits, it is dubious if many patients can be classified as receiving adequate protein. Further, this is of consequence not only in clinic patients with low incomes, since Mark[22] has reported that ignorance of nutrition principles and individual preferences for low quality protein foods may lead to inadequate protein nutrition even in relatively high income groups. Many authorities have recommended that two-thirds to three-fourths of the total protein ingested should be of high quality animal source for children and adolescents, and for pregnant and lactating women.[23, 24, 25, 26, 27] Faced with the problem of insuring adequate protein for the health of the mother and the fetus, the obstetrician must view the dietary requirements qualitatively as well as quantitatively.

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Whereas high levels of animal protein are desirable, they are frequently unattainable because of financial burden, personal likes, and dietary habits. If the quantities of protein cannot be increased, available methods of improving the quality of protein become of prime concern.

LYSINE SUPPLEMENTATION FOR IMPROVING PROTEIN QUALITY

For some time the nutritionists have contended that not only must the protein anabolic centers of the body have adequate amounts of essential amino acids presented to them for tissue synthesis, but amino acids must be available in the proper proportions. These workers stress that the correct proportion of the amino acids is more important than the total protein intake.[28, 29, 30, 31]

Recently, Albanese and his co-workers[32, 33] have demonstrated that most proteins, with the exception of meat products, are deficient in lysine, and that lysine, added to the diet of malnourished children, produces an increase in body weight, total plasma proteins, and nitrogen retention. They attribute the increase in protein utilization to the change in the proportion of the amino acids available to the protein anabolic centers for tissue synthesis. Similar results were obtained in malnourished elderly women convalescing from acute episodes of cardiovascular decompensation.[34]

Medical literature contains considerable evidence that adequate protein intake is important for hemoglobin formation. Lynch and Snively[35] have found that the anemia of undernourished children did not respond to massive doses of iron. Higher intake of protein with iron quickly corrected the hemoglobin levels. Cannon[36] recommended the intake of high quality protein for regeneration of plasma protein and of hemoglobin in humans. Keys and associates[37] indicated that the hemoglobin level is a better index than plasma protein levels in the detection of protein undernutrition.

It was decided, therefore, to conduct a therapeutic trial with lysine supplementation in a selected group of pregnant women who exhibited low hemoglobin levels despite adequate intake of supplemental iron. These cases are by no means rare, and whereas iron therapy prevents further decrease in hemoglobin levels, the patients continue to remain in a state of mild or frank anemia. Unfortunately, since hydremia of pregnancy reduces the level of hemoglobin, values of 70 to 80 per cent have come to be accepted as normal. Fisher and Biggs[38] protested such acceptance and stated that "low hemoglobin levels are undesirable and unnecessary."

RESULTS AND CASE REPORTS

Twelve pregnant women who had consistently demonstrated hemoglobin levels less than 10.5 Gm. per 100 cc. of blood, in spite of adequate vitamin and iron intake, received a diet with supplementary lysine. The product used* provided 200 mg. of 1-lysine at each meal or a total of 600 mg. per day. The patients continued to receive adequate iron supplementation. In each instance there was a prompt and often dramatic rise in hemoglobin level. The following case reports are typical of this series.

CASE 1.—Mrs. R. B., para 1, gravida 1, was 3 months' pregnant on her initial visit May 26, 1956. With a hemoglobin of 9.3 Gm., iron was prescribed. On July 7, the hemoglobin was 10.1 Gm., and on August 10 it was 10 Gm. Iron preparation was continued plus Cerofort. Hemoglobin on September 21 was 11.6 Gm. November 10 a 7 pound, 2 ounce boy was delivered with no complications. November 13 the patient's hemoglobin was 11.8 Gm.

CASE 2.—Mrs. S. V., para 3, gravida 3, gave a history of low hemoglobin values during previous pregnancies despite iron therapy. Hemoglobin at the initial visit on June 16, 1956, was 9.3 Gm. per 100 cc. of blood. Mol-Iron and Cerofort were prescribed throughout pregnancy. Her monthly hemoglobin value ranged from 11.4 to 11.8 Gm. A 6 pound, 11 ounce girl was delivered December 28. The patient's hemoglobin January 2 was 11.7 Gm.

CASE 3.—Mrs. M. R.'s initial hemoglobin was 8.3 Gm. Iron was prescribed, and on May 16, 1956, the hemoglobin was 9.1 Gm.; on June 22, 9.1 Gm. Cerofort was prescribed, and on July 18 her hemoglobin was 11.2 Gm. On October 30 twins were delivered, a boy 5 pounds, 10 ounces and a girl 5 pounds, 7 ounces. January 3, the patient's hemoglobin was 12.3 Gm.

In addition to the rise in hemoglobin levels in this series of patients, the subjective changes, so important to both clinician and patient, were impressive. It was decided to study lysine supplementation of the diet in obstetric patients for a period of 1 year. Every third patient was used as a control, receiving only the usual routine of a prenatal vitamin preparation and adequate amounts of iron. All others received the same amounts of iron together with a lysine-vitamin mixture. Selection of patients for each series was entirely random so that from an economic and social standpoint, each group represented a good cross-section of a private obstetric practice. The number of control cases was reduced by the exclusion of 14 patients who continued to exhibit unusually low hemoglobin values despite the intake of adequate iron and vitamins, and in whom it was deemed advisable to administer the lysine preparation as well. All except 2 of these patients exhibited prompt elevation of hemoglobin. Two hundred four patients received the lysine preparation throughout pregnancy, and 92 women were carried through their pregnancies on the usual office routine but with no lysine.

Whereas it is recognized that no therapeutic pro-

**Cerofort Tablets, White Laboratories, Kenilworth, N. J.*

cedure can be evaluated by subjective response, the results in this study are important to the obstetrician and deserve mention. The office staff volunteered the information that they were able to "spot" the patients in the "lysine" group. Especially during the first trimester, the lassitude and chronic fatigue so frequently encountered were usually not evident in the patients who received the lysine product. Their increased feeling of well being throughout pregnancy was impressive. Furthermore, it was our impression that the postpartum convalescence of these patients was superior to the untreated group.

During the year this study was under way, 7 patients developed symptoms of preeclampsia. Six of these were in the control group (no lysine) and 1 presumably on lysine supplementation. On investigation it was found that this single patient had not followed dietary recommendations and had not taken the prescribed supplement. Therefore, in this limited series, no patient on the lysine product exhibited symptoms of preeclampsia.

Objectively, the results of the hemoglobin determinations confirmed the observations made in the preliminary series. Uniformly the women in the treated group exhibited higher hemoglobin values throughout pregnancy and at 3 days post partum than did the control group. For example, among the women receiving lysine, the average hemoglobin value at the end of the seventh month of pregnancy was 11.8 Gm. per 100 cc. as compared with 10.2 Gm. per 100 cc. in the control group. In addition, values in the untreated group varied much more widely. It would have been preferable to obtain simultaneous hematocrit values on all patients, or even better, total hemoglobin mass as recommended by Lund.[39] Such procedures were not practicable in a busy office. Lacking such definitive data, I made an effort to include a sufficient number of patients in a controlled study to give some indication of the value of lysine supplementation in the diet of pregnant women. It can be argued that many women with marginal or frank anemias have been known to complete successful pregnancies. Although this is true, it should not serve as an excuse for failure to prepare the patient by every possible means at our disposal to reach term with her full complement of hemoglobin so necessary to withstand the blood loss of delivery.

SUMMARY

The value of adequate protein both qualitative and quantitative in pregnancy has been reviewed.

The results of a year's study with a dietary supplement containing the essential amino acid lysine in a controlled series of patients is presented. Objectively, the treated series of patients had significantly higher mean levels of hemoglobin throughout pregnancy and at 3 days post partum than did the controls. No patient receiving lysine developed signs of preeclampsia as compared with 6 cases in the untreated series. Subjectively, all patients treated demonstrated impressive relief of chronic fatigue and increased feeling of well being.

There is evidence that the administration of the lysine-vitamin preparation is a valuable aid in preparing the obstetric patient for parturition.

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External Endometriosis

Present Clinical Concepts

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EXTERNAL endometriosis is a disease entity of theoretical etiology that is progressive in its involvement of the female generative tract, with spread to other tissues and organs of the body producing varying degrees of patient incapacitation and a high rate of infertility.

A series of 254 consecutive microscopically proven cases of external endometriosis in a period of Janu-

Dr. William F. Guerriero and his co-author, from the Department of Obstetrics and Gynecology, Truett Memorial of Baylor University Hospital, presented this paper for the Section on Obstetrics and Gynecology of the Texas Medical Association April 30, 1957, in Dallas.

A review of the present concepts of endometriosis is given with the analysis of 254 cases from Baylor Hospital in Dallas. The review is concerned with the physician's practical management and diagnosis of this condition, which is becoming more prevalent and more of a problem. Some newer concepts of the management of endometriosis and their acceptance in gynecologic circles are given.

ary 1, 1952, to January 1, 1957, from Truett Memorial of Baylor University Hospital, Dallas, has been reviewed to form the basic clinical material of this publication.

This clinical entity is a more common gynecologic condition than generally appreciated. Siegler[18] reported a laparotomy incidence of 8 per cent, Schmitz[16] 10 per cent, Gray 29.3 per cent, Payne 10 per cent, McCall[12] 16 per cent, Depp and Pope[5] 12.8 per cent, and Meigs[13] 35.5 per cent in 800 consecutive private cases and 8.1 per cent of 800 consecutive ward cases. Johnson[11] reported 898 cases of external endometriosis from 13,866 major gynecologic operations for an incidence of 6.5 per cent from Touro Infirmary of New Orleans, which is a private institution like Truett Memorial. During our reviewed period 5,515 laparotomies were performed with 254 cases of external endometriosis giving an incidence of 5 per cent. These cases approximated 90 per cent private and 10 per cent ward. The incidence of ward cases has in every series reported been low in comparison to private cases. Such is true in our study with only 6 ward cases. Even more distorted and without known reason is the low incidence always reported in Negro patients. McCall's[12] series is the most representative with an incidence of 0.18 per cent of 36,227 Negro patients and 0.3 per cent of 22,200 white patients admitted to Charity Hospital of New Orleans. In these 254 cases 10 or 4 per cent were Negro and 244 or 96 per cent were white, though figures for the number of Negro and white admissions are not available in our series.

This is a disease predominantly of young women though it commonly is present in all ages. Henrickson[10] in 1,000 cases noted 82 per cent to occur between the ages of 30 and 45 years whereas in this series 168 cases or 67 per cent occurred prior to age 40 and 86 cases or 33 per cent after age 40.

External endometriosis is associated with a high incidence of infertility. Cavanagh[2] reported infertility twice the normal frequency in marriages prior to age 30 years and nine times more frequently in marriages after age 30. Gray noted an infertility rate of 45.5 per cent, and Counseller[4] reported rates varying from 29 per cent to 60 per cent. Of our 254 patients 239 were married with 134 or 56 per cent childless. Prior to age 40 there were a total of 158 patients with 85 or 53.7 per cent childless and after age 40 a total of 81 cases with 49 or 60 per cent childless. The etiology of the infertility is not clearly understood. Te Linde and Scott[20] found patent tubes in 89.5 per cent of their patients tested and did not believe this the cause of the infertility. Dockerty[6] and Meigs[13] expressed the belief that fixation of the tubes and ovaries causes a loss of interplay between the ovary and tube with a consequent inhibition of passage of the ovum. Depp and Pope[5] operated on 85 patients with early external endometriosis, all with patent tubes determined by salpingography, who were infertile, with a success of 70.5 per cent by conservative surgery. In a personal communication he was unable to explain the good results except possibly by the promotion of better ovum passage in the tube. Meigs[13] has recommended earlier marriage with earlier childbearing to prevent infertility developing in potential cases of endometriosis.

Symptomatology is variable irrespective of the location or extent of the disease. The characteristic progressive, severe, incapacitating dysmenorrhea is not always present and as such was noted in only 46 per cent of our cases. Varying types of pelvic pain from a constant or intermittent dull ache in one or both sides, dyspareunia, dysuria, rectal tenesmus, pelvic pressure, and low backache were noted in 19 per cent of our series. The cause of the pain has been debatable. It always has been assumed that the cyclic breakdown of ectopic endometrium with bleeding into blind pockets causes the pain. However, Sturgis and Call[19] disputed this. Since fibrosis about the lesion occurs, they believed this is not caused by invasion by the endometrium but a foreign body reaction of the host tissue varying with the activity of the endometrium. Fibrotic encapsulation of the irritable foci will depend on their relation to the serous surface of the peritoneum. Superficial areas expand outward, do not encapsulate, and hence do not cause pain. Deep lesions become bound in fibrotic walls, and if functional activity persists, the increased tension within the unyielding scar produces pain. They estimated it may take years to produce such fibrotic capsules; hence the peak incidence of symptoms is usually after age 30. Menses aberration mostly in the form of excess and prolonged flow was noted in 18 per cent. In 17 per cent there was a complete absence of any symptoms. This is not fully appreciated, and one must realize endometriosis can be

TABLE 1.—*Symptoms in 254 Cases of Endometriosis by Age Groups.*

	To 29 Yr.		30-39 Yr.		40 Yr. and Up		Total	
	No.	%	No.	%	No.	%	No.	%
Pain	7	03	28	11	14	06	49	19
Dysmenorrhea	40	16	47	19	30	11	117	46
Menses aberration	6	02	12	04	27	10	45	18
Without symptoms	7	03	21	09	15	06	43	17
Totals	60	24	108	43	86	33	254	100

extensively present without symptoms being present. In many instances in this series one noted the surgical findings of extensive pelvic endometriosis without any symptoms being present. Rectal bleeding occurred in approximately 1 per cent of our series in the group listed under pain. Table 1 gives a detailed analysis of symptoms.

The pelvic bimanual findings are also variable irrespective of the degree of symptomatology. There may be only thickening or nodulation of the uterosacral ligaments with excessive tenderness which is exaggerated premenstrually and at menses. Or there may be complete fixation of the pelvic viscera with palpable masses and retroversion of the uterus with acute tenderness resembling pelvic inflammatory disease. In between these extremes one may note varying findings on examination resembling other gynecic disease. In many instances the findings are better detected by rectal examination at which time involvement of the rectovaginal septum or the rectum by hard, irregular masses also may be detected. In general the findings may resemble any of the common gynecic diseases, and when the rectum is involved, the disease may be more like carcinoma than carcinoma itself.

With symptoms and physical findings being so variable, it is thus natural to expect a low incidence of correct preoperative diagnosis unless one becomes "endometriosis conscious" and suspects the diagnosis when any of the aforementioned symptoms and findings are present. This is especially true in the infertile patient. In our series a correct preoperative diagnosis was made in 98 cases or 39 per cent. Of the 156 or 61 per cent missed diagnoses one can note from table 2 that neoplasms of the uterus and ovary

TABLE 2.—*Admission Diagnosis in 156 Cases of Unsuspected Endometriosis.*

Diagnosis	No.	%
Myoma	44	28
Ovarian neoplasm	57	37
Myoma and/or neoplasm ovary	21	14
Menses aberration (hyper)	15	10
Salpingitis	7	04
Appendicitis	6	04
Ruptured follicle	1	005
Small bowel obstruction	1	005
Ectopic pregnancy	1	005
Inguinal hernia	1	005
Cervix carcinoma	1	005
Cecum carcinoma	1	005
Totals	156	100

separately or combined accounted for 122 cases or 79 per cent. A greater suspicion of endometriosis should be realized if one remembers that rarely will ovarian or uterine neoplasms produce any symptoms of note. Concomitant disease of the pelvic organs may be present with endometriosis. From table 3 it is noted that 69 cases or a 27 per cent incidence of concomitant disease was present. Among these were 3 cases of malignant ovarian neoplasms, all serous papillary adenocarcinoma in women ages 41, 42, and 45 years with carcinoma being separate from the endometriosis present in the ovary. Green and Enterline[8] recently reported 2 cases of malignant transition in endometriosis which met Sampson's criteria. These 2 plus 22 they collected from the literature consisted of 12 adenocarcinoma, 10 adeno-acanthomas, 1 epidermoid carcinoma, and 1 carcinosarcoma of the ovary. Thus one realizes that malignant transition is not a frequent occurrence though a possibility.

TABLE 3.—*Concomitant Disease with 254 Cases of Endometriosis.*

Disease	No.	%
Myoma	46	18
Benign ovarian neoplasm	10	04
Malignant ovarian neoplasm	3	01
Cervix carcinoma	3	01
Uterus carcinoma	1	005
Tube carcinoma	1	005
Salpingitis	4	015
Ectopic pregnancy	1	005
Totals	69	27

The location of the predominant sites of endometriosis in this series is noted in table 4. Peritoneal implants occurred frequently from small implants to extensive involvement. In the instances of involvement of the ovaries nearly all were bound to the broad ligament, the lateral wall of the pelvis, or the cul-de-sac. Johnson[11] has reported 6 cases of constriction endometriosis of the rectosigmoid for an incidence of 0.66 per cent in a series of 898 cases of external endometriosis.

TABLE 4.—*Location of 254 Cases of Endometriosis.*

	No.	%
Ovaries	128	50
Uterosacral, tubes and ovaries	28	12
Uterosacral, tubes, ovaries, and rectosigmoid	79	31
Rectosigmoid alone	6	02
Appendix	3	01
Small bowel	3	01
Bound ligament	1	005
Abdominal incision	1	005
Cervix	2	01
Vagina	3	01
Totals	254	100

An important aspect of this series was the extensive involvement in 6 cases of the rectosigmoid and 3 of the small bowel. Thus 6 or 2.3 per cent of our cases extensively involved the bowel. Of the 6 lesions of the rectosigmoid all were constriction in type producing symptoms with 2 without endometriosis else-

where. In the 3 of small bowel involvement extensive disease of the pelvic viscera was concomitantly present.

It is of interest to note from table 5 that 50 or 19.7 per cent of these 254 patients had experienced some form of surgical therapy prior to admission. We were surprised that more had not been exposed to conservative surgery. From the records only 6 cases had been given hormones prior to admission, and we believe this is probably incorrect. Two patients had received supposedly castration doses of irradiation 3 and 5 years previously without any effect.

TABLE 5.—*Prior Therapy in 254 Cases of Endometriosis.*

	No.	%
Dilatation and curettage	24	09
Conservative surgery	18	07
Hysterectomy	4	02
Cesarean section	4	02
Totals	50	20

The management of this entity is determined by the correlation of the age of the patient, and the parity and desire for children, with the severity of the symptoms and the extent and location of the endometriosis. From this one can decide on either definitive or palliative therapy.

Definitive therapy consists of castration by surgical removal of all ovarian tissue and should be accompanied by total hysterectomy. Irradiation therapy should not be used in this disease. Castration is the accepted therapy after age 40. Often this form of therapy is selected for women younger than 40 years when infertility is absolute or sufficient children are alive, if (1) the disease is extensive with or without symptoms, (2) severe, incapacitating symptoms are present with a minimum amount of disease, and (3) bowel or bladder involvement is extensive at the time of surgery or may become so in the future. In this series castration by surgery was performed in 108 cases or 42 per cent, in which 5 patients were younger than 30 years, 39 were between ages 30 and 40, and 64 were more than age 40.

It is now recognized that it is possible to give estrogens postoperatively to the woman who has been castrated for endometriosis without producing any untoward results. Thus in the future more women with absolute infertility over 35 years of age probably will be castrated for this disease.

One hundred five patients had concomitant total hysterectomy and 4 subtotal hysterectomy. Two of these had concomitant bowel resection performed for a constricting lesion of the sigmoid in 1 case and of the small bowel in another. Since bowel involvement of many types may be present, we have found it an advantage to prepare the bowel prior to surgery. The use of barium enema with proctoscopic and sigmoidoscopic examination of the colon is essential to help differentiate endometriosis from carcinoma of the bowel. Often the final differentiation can be made only by resection of the involved bowel and its submission to frozen section.

Palliative therapy is designed primarily to preserve the childbearing functions of the patient and/or to preserve ovarian function. This may consist of (1) watchful expectancy with aids to promote the development of pregnancy, (2) various forms of conservative surgical therapy, and (3) hormone therapy. Watchful expectancy with promotion of pregnancy has been advocated by many, and Counseller[4] stated that this is the procedure of choice in young women with minimal symptoms and disease as only about 10 per cent become pregnant after conservative surgery. Depp and Pope,[5] however, had the opinion that the poor results from conservative surgery to correct infertility in the patient with endometriosis are primarily due to the delay in performing the surgery until the disease has produced an almost absolute infertility. By being "endometriosis conscious" and electing surgery in the early stages of the disease, they were able to achieve pregnancies in 60 of 85 cases. They strongly urged the earlier acceptance of

TABLE 6.—*Predominant Therapy in 254 Cases of Endometriosis by Age Groups.*

Therapy	To 29 Yr.		30-39 Yr.		40 Yr. and Up		Total	
	No.	%	No.	%	No.	%	No.	%
Hysterectomy with unilateral salpingo-oophorectomy	10	04	36*	14	24†	09	70	27
Hysterectomy with bilateral salpingo-oophorectomy	5	02	35	14	52	20	92	36
Unilateral salpingo-oophorectomy	18	07	22	09	4	015	44	17
Resection of ovaries	23	09	13	05	4	015	40	16
Neurectomy	3	015	1	005	0	.....	4	02
Bowel resection	1	005	1	005	1	005	3	015
Cervical stump resection with bilateral salpingo-oophorectomy	0	.....	0	.....	1	005	1	005
Totals	60	24	108	43	86	33	254	100

* 3 with prior unilateral salpingo-oophorectomy.
† 11 with prior unilateral salpingo-oophorectomy.

surgical therapy for sterility patients with endometriosis, provided the husband is not sterile and the wife has patency of the fallopian tubes and ovulates. Conservative surgery otherwise than for purposes of correction of sterility will be selected only for the relief of symptoms and to preserve ovarian function. If such is true, it seems rational to us that hysterectomy be performed since relief of symptoms is accomplished more definitely.

Table 6 supplies detailed information as to therapy in this series. In 92 cases conservative surgical therapy of various types was done with 83 patients younger than 40 and 9 older than 40 years of age. We are unable to obtain sufficient data to comment on the results of such therapy in this series. One 19 year old patient had extensive constriction endometriosis of rectosigmoid without other involvement of note in which bowel resection without any other pelvic surgery was the treatment.

Hormone therapy has been controversial since it was first advocated by Karnaky. Varying opinions as to its adequacy are noted in the literature.[1, 9, 17] We, in our own cases, have been more perplexed than elated over results. If one uses this form of therapy, it should be terminated after adequate trial without result and surgery employed. This is especially true in the infertile patient before the infertility becomes absolute.

CONCLUSIONS

A series of 254 proven cases of external endometriosis is reviewed. Discussion of infertility, symptoms, findings, and diagnosis is given. The management of external endometriosis is discussed as to palliative and definitive therapy.

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ABSTRACT OF DISCUSSION

Dr. W. T. Kable, Jr., Wichita Falls: The authors have pointed out that the varied symptomatology and pelvic findings frequently make the clinical diagnosis of endometriosis presumptive. However, Counseller* stated the belief that 25 per cent of patients with endometriosis will need surgery at some time. That many of these patients are operated on early is evidenced by the fact that in this series 67 per cent were operated on before the age of 40 years and 24 per cent before the age of 30. Payne,† reporting the conservative surgical treatment of 72 per cent of his cases, stated that in the 20 to 29 year age group 14 per cent required radical surgery, that is, complete ablation of all ovarian function. In the 30 to 39 year age group 36 per cent of the cases required radical surgery. In this series in the identical age groups the authors report 8.3 per cent and 36 per cent (table 6). In addition, in all the patients under 40 years of age requiring operation, 74 per cent had preservation of some ovarian function. It is apparent then that, although the authors' over-all conservative operative rate of 58 per cent is lower than that reported by Meigs,‡ Payne,† and others, it is in the group over 40 years of age that they have tended to be more radical. In this age group there is admittedly room for honest differences of opinion. Meigs‡ stated that Sturgis suggested many years ago that endometriosis in later years is stationary and, commenting on three large series of endometriosis cases treated conservatively (defined as the conservation of some ovarian tissue), stated that recurrence is infrequent and the cure of the lesion by conservative surgery is usual. He added further that this most recent review had not given them any need to change their mind.

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Postmenopausal Medical Gynecology

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LIFE EXPECTANCY for women has been increased by a quarter of a century during the past 50 years; therefore, the importance of gynecological treatment for women of the postmenopausal age has attained greater significance, and new concepts of physiology and treatment are being evolved. At the present, a newborn female has the prospect of one-half of her life being other than during the reproductive years. Approximately one-sixth will be before puberty and one-third after the menopause. The National Office of Vital Statistics reveals that the life expectancy of a female at birth in 1900 was 48.7 years and in 1950 was 72.4 years.

That we should not tamper with nature by proper use of medications is as absurd as agreeing that we should not preserve foods, treat infections, or perform immunizations as they, too, tend to circumvent the processes of nature. As in any relatively new area of therapeutics, there will be errors of opinion and the correct measures will evolve only gradually. It is the responsibility of the advocates of a new concept or therapy to prove its validity and extent of usefulness rather than skeptics to discredit it.

PHYSIOLOGY

Many women in their sixties and seventies reveal well cornified vaginal smears, and invariably the smear of the oophorectomized woman will become atrophic but soon can be cornified again by the administration of estrogens. It seems logical, therefore, that there is estrogen or estrogen-like production for many years following the cessation of menstruation, that there must be many levels of estrogen deprivation just as there are in other endocrine disturbances such as diabetes mellitus and hypothyroidism, and that violent psychic and somatic changes at the menopause are due to a more rapid diminution of estrogen than nature intended.[11] The woman that experiences mild mental and physical menopausal symptoms apparently has a gradual waning of the submenstrual level of estrogen over a number of years and is not necessarily a stoic person.

That the ovary has an interglandular effect is demonstrated by the increased urinary gonadotropins in the climacteric, but whether or not there is a postmenopausal extraovarian source of estrogen or estrogen-like substance appears doubtful although it is still a moot question.

The third sex or "neuter gender," as described by Masters,[8] includes females who have reached the age of approximately 60 years. The gonads are the weakest link in the endocrine chain and have the shortest functional life. This is a result of inherent lack of organ function reserve and the susceptibility of the gonads to dysfunction during the reproductive years either directly or through some other gland of internal secretion. Early or premature menopause resulting indirectly from pituitary disorders such as a tumor or malnutrition and following shock and severe hemorrhage are well known. There is also a familial tendency to early menopause, but by far the most frequent cause is oophorectomy.

Dr. Noel R. Boiley presented this poper before the Texos Medical Associotion's Section on Obstetrics ond Gynecology, April 30, 1957, during the onnual session in Dollos.

With the increased life span, postmenopausal gynecology is becoming more and more important. Various problems are considered along with a brief review of physiology. Emphasis is on trophic changes, allergies, and general systemic problems, and suggestions are made for diagnosis and therapy.

SYSTEMIC EFFECTS OF ESTROGENS

The postmenopausal administration of estrogens must be justified by a definite indication. The possibility of such indications has been expanded with the increase in longevity of females and the consequent greater attention to this age group. The improvement in the general sense of well-being has been noted by many following estrogen and estrogen-androgen combinations; such a preponderance of observations must be founded upon fact. Approximately 75 per cent will show improvement in either mental or clinical well-being or both, and the remaining 25 per cent will have little, if any, response.

Caldwell[2] denied improvement of mood, general level of optimism, and attitudes regarding everyday experiences; however, these observations were on institutionalized patients. The most impressive changes she observed were in the areas of memory and intellectual functioning. Individual response varied

greatly, but in these areas the test group showed improvement at 6 months, a slight decrease at 1 year, and a slightly greater decrease at 18 months. A plateau of therapy extends from approximately 6 to 12 months and is followed by retrogressive changes as would be expected, but there seems to be some support from continued therapy. Caldwell used estrogen alone, estrogen with progesterone and androgen, and estrogen with androgen. Each was used for 6 months and in consecutive order in the same patients. She found that it was not until 6 to 12 months after the cessation of therapy, which was 24 to 30 months from the beginning of the study, that the performance of the treated group declined to below their level at the onset of treatment. The control group consistently declined; however, 1 year after the end of therapy the treated group was still maintaining approximately the same superiority over the controls despite the average age being 2 years less in the control group. The addition of progesterone and androgen or androgen alone to the estrogen did not improve the results; however, it is my clinical observation that initial improvement is more rapid and if the treatment is in or near the menopause there is less likelihood of breakthrough bleeding if the estrogen-androgen combination is employed.

Dyspareunia may be due to vaginal narrowing, infections superimposed on an atrophic mucosa, and introital stenosis in this age group and is relieved or improvement abetted by estrogens given locally or systemically or both. Lack of sexual outlet or enforced abstinence may give rise to neurotic symptoms and be related to more severe psychologic manifestations resulting from loss of prestige, status, and desirability. Married men past age 65 are much healthier than single or widowed men, and it seems logical the same would apply to women.[1]

Coronary atherosclerosis is 10 to 40 times more frequent in men than women under 40 years. Wuest, Dry, and Edwards[12] reported that bilateral oophorectomized women had, by age 50, a degree of coronary atherosclerosis not reached by the control group until age 70, and that decade by decade the incidence of severe coronary atherosclerosis was 10 to 45 per cent greater among the oophorectomized group.

Myocardial infarction is rare in premenopausal women in the absence of a complicating associated disease such as hypertension and diabetes mellitus. In 146 consecutive admissions of women with myocardial infarction to the Henry Ford Hospital the age extremes were 27 and 81 years, the average age was 64, the average time after the menopause was 16.6 years, and diabetes and/or hypertension was present in 70 per cent of the women. The incidence increased five times when comparing the 40 to 44 year age group with the 45 to 49 year age group and almost doubled again in the 50 to 54 year age group.[6]

Estrogen in the urine of postmenopausal women is less in those who have had myocardial infarction than in women free of cardiovascular disease. Estrogen administration lowers cholesterol and increases phospholipids possibly by an intermediary effect on calcium and magnesium metabolism. The correlation, or lack of such, between cholesterol levels and atherosclerosis is very unsettled as the current medical literature will attest. Oophorectomy may aggravate existing hypertension but apparently does not initiate hypertension in a person who was previously normotensive.[5] Adrenal cortical hypertrophy after oophorectomy, as evidenced by increased 17-ketosteroid production, increases the adrenal cortex hormone and suppresses thyroid action through its interference with iodine collection by the thyroid. The pituitary is affected either directly or indirectly by the lack of estrogen as expressed by an increase in urinary gonadotropins following the menopause. Estrogen has a role in carbohydrate metabolism, stimulating both energy production and glycogen deposit.

The effect of estrogens in osteoporosis is well accepted; their employment results in almost dramatic subjective improvement in 2 to 4 weeks and almost complete relief in 6 weeks. Perloff, Boutwell, and Maas[10] found a negative calcium balance in 50 women proven to be climacteric by routinely elevated urinary gonadotropins and to have osteoporosis of the spine by roentgen ray and symptomatology. They were able to produce a positive calcium balance within a month as determined by the calcium balance test of Albright and Reifenstein and the calcium tolerance test of Schilling and Laszlo. After 2 months' treatment with estrogen and androgen the positive calcium balance was approximately to the same extent as the negative balance was prior to treatment.

Since estrogenic material is being used with justifiable frequency in the aging female and probably will continue to be used either alone or in combination with androgen, it would seem better to learn to use it judiciously. At the present, the smallest oral dose or local application that is effective should be used (1) in the various atrophies that are symptomatic, (2) to promote the general sense of well-being and, temporarily at least, to slow the aging process, and (3) for the vasomotor symptoms of the menopause. The use in specific systemic diseases such as atherosclerosis and osteoporosis is best left to the capable phyiscian in the appropriate field.

When oophorectomy is being considered, it is necessary to balance the certain loss of the protective action of ovarian hormones and their effect on other members of the endocrine system against the benefits of oophorectomy.[5] It is my opinion that many oophorectomies are done without cogent reasons.

INFECTIONS

The infections and disturbances of epithelium, such as erosion of the cervix, respond more rapidly when adequate estrogens are present as reflected by cornification of the cells in the vaginal smear. Without estrogens either locally or systemically, improvement may be slow or unattainable. It is of the utmost importance that measures adequate to convince the physician that malignancy is not present be performed prior to therapy. Other than these the postmenopausal infections vary but little from those of the reproductive period.

ATROPHIC CHANGES

More than 90 per cent of older women will have some pelvic lesion. Two-thirds will have senile atrophy, one-half will have relaxations, and two-fifths will have easily discernible findings such as urethral caruncle, cervical polyps, pelvic mass, dermatitis, discharge, or cervical erosion. On interrogation of the elderly patient, twice as many will be found to have pelvic complaints when compared with the number having a presenting complaint.[4] In addition to being the most frequent postmenopausal change, atrophy is also the most widespread and oftentimes involves the entire genitalia. The clinical picture varies with the degree of atrophy and any associated abnormal process.

UTERUS

The uterus is second to the cervix as a source of postmenopausal bleeding, being the site of origin in 20 per cent of the total. Carcinoma of the corpus uteri will be the cause in half the cases with uterine bleeding, and fibroids will comprise one-fourth.[7] Atrophy of the endometrium, adenomyosis, and breakthrough or withdrawal bleeding due to estrogens comprise the other common local causes. Among the systemic diseases hypertension, vasculorenal disease, purpura, leukemia, arteriosclerosis, and congestive heart failure may be causes. The amount or type of postmenopausal bleeding is irrelevant, as is parity. There may be a multiplicity of causes and immediate examination is imperative, for one-third of such bleeding denotes a genital malignancy. This figure is based upon the numerous reports in the literature of very recent years. However, there is a note of encouragement regarding decreasing abuse of hormones and greater patient education, for among women with postmenopausal bleeding, genital cancer was twice as frequent 25 years ago as it is today.

CERVIX

In the cervix the atrophic changes predispose to pyometra, which is often associated with malignancy. Since the cervix is by far the most common site of genital cancer, the discovery of pyometra makes dilation for treatment and curettage for diagnosis mandatory. Carcinoma of the cervix decreases in incidence after the fifth decade and probably is more benign, but there is also a lower physical reserve in older patients.[9] Polyps of the cervix are the most frequent nonmalignant cause of postmenopausal bleeding.

VAGINA

The shrinkage in caliber and loss of elasticity of the vagina may cause dyspareunia and bladder symptoms suggestive of mild cystitis and urethritis but with a normal urinalysis. Relief in 2 to 4 weeks is obtained by estrogen intravaginally.

VULVA

Among postmenopausal patients, more complain of symptoms referable to the vulva than to any other part of the genitalia. Farley and Wolf[4] found that of presumably healthy postmenopausal women over age 65 seen in a cancer detection center, 37 per cent volunteered some pelvic complaint. One-half of these complaints were referable to the rectum; however, less than 5 per cent of the patients had rectal lesions. It appears that the cause of such a complaint is three or four times more likely to be gynecological than proctological. However, this fact does not relieve us of rectal investigation as the same authors reported the discovery of twice as many rectal as genital malignancies.

The natural degenerative changes and atrophy of aging, the bathing by secretions of higher origin in the genital tract, the use of lotions, soaps, and creams for hygienic or medical reasons, systemic and dermatological diseases, and the instability of the nervous system contribute to the most common symptoms referable to the vulva, namely, itching and irritation. Pruritus vulvae is not a diagnosis; it is merely a symptom. If the etiology of the pruritus defies detection at once, repeated search and continued observation will enable us to place these initially baffling problems in their proper niche of diagnosis.

Pathological atrophy is observed in senile vulvitis, lichen simplex, leukoplakia, and kraurosis. All of these conditions may be simplified by considering them, primarily, to be the various manifestations of a degree of hypotrichosis and atrophy with occasional hypertrophy and eventual hyalinization of the dermal elements. The premalignant nature of leukoplakia and kraurosis is not new nor is there any uniformity of opinion regarding management of these disorders. However, patients with a long history of pruritus, in whom no specific cause can be found and who fail

to respond to a fair trial of medical treatment or in whom induration or ulceration develops while under treatment must be subjected to biopsy.[3]

The management of vulvar irritation due to vaginal and cervical infections and the annoyance of the incontinent or pathological urine is not different in the postmenopausal patient except that it may be more refractory to treatment.

As all know well, there probably is not a single substance that has not produced allergic manifestations under certain conditions. Any allergen, such as phenolphthalein, taken internally, may involve the vulva, but usually other areas are affected also. Numerous proprietary preparations and prescriptions used locally contain phenol, benzoic acid, resorcin, tar, ichthyol, or mercury salts and may cause or alter the appearance of a preexisting irritation. Scented soaps, napkins, and articles of clothing may cause itching. Nylon may cause itching of the vulva without affecting the skin of other parts with which it is in contact; in such cases the pruritus is mild to moderate and there are little or no skin manifestations except the abrasions and excoriations due to the scratching. Detecting the allergenic substance will tax the sagacity and diagnostic acumen of the physician. A careful history, a knowledge of the most frequent offenders, and a trial and error removal of the possible agents is the most satisfactory approach. The character of the local irritation is usually of little assistance as the appearance varies greatly even for the same agent. For relief, one should use only the blandest of ointments locally for their soothing effect plus an antihistamine and/or a gluco-corticoid (hydrocortisone or cortisone) either locally or systemically or both.

Numerous systemic diseases have vulvar manifestations; the most common metabolic disorder involved is diabetes mellitus. This causes an erythematous, inflammatory eruption of the whole vulva which is often secondarily infected with fungus. The latter defies treatment until the diabetes is controlled especially if there is an associated hypertension. Microcytic anemia may give rise to dryness, fissuring, and paleness; this most frequently involves the mucosa rather than the skin of the vulva.

Psoriasis, eczema, acne, ringworm, and the seborrheas may involve the vulva and are usually accompanied by lesions elsewhere. These, more properly, belong in the hands of the dermatologist. Intertrigo occurs frequently, especially in the obese, and involves contiguous surfaces. It usually responds rapidly to local application of a shake lotion composed of cinnabar, precipitated sulfur, oil of cade, zinc oxide, and calcium water.

The tensions of today are comparable to the syphilis of yesteryear in their ability to mimic a multiplicity of disorders. The itching of the skin of various parts of the body is a very prevalent symptom, but it sometimes affects the vulva alone. The minimal local reaction in comparison to the itching along with the general emotional instability of the patient is characteristic. Barbiturates usually have little effect, but these patients are improved by the physician's being "a good listener" and the administration of a Rauwolfia preparation or other tranquilizer.

SUMMARY

The importance of postmenopausal gynecology is increasing with the lengthening of the life span. Attention is being accorded to the role of ovarian activity and estrogen administration after the menopause for their alleged prophylaxis of certain systemic, degenerative diseases in addition to their effects upon the genitalia. The high incidence of pelvic lesions in elderly women is stressed, and the role of estrogens as the primary or adjunctive therapy in infections and atrophic disorders of the reproductive system is emphasized.

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Dr. Bailey, 1506 West Terrell, Fort Worth.

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Glutamine In Treatment Of Peptic Ulcer

Preliminary Report

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IN A SERIES of papers,[2-5] Cheney reported that raw cabbage juice contains a heat labile factor which is effective in treatment of peptic ulcer. Certain heat labile factors occurring in cabbage juice have been investigated as possible anti-ulcer factors by our group over the past few years. The methyl sulfonium derivative of methionine was isolated from cabbage juice as a part of this program.[11] Another factor which reversed the toxicity of alcohol for certain microorganisms[13] was found to occur in cabbage juice and was destroyed on heating the juice. This factor, identified as glutamine during the course of its isolation from liver, also was isolated from cabbage juice. Juices from different sources of cabbage vary in their content of glutamine from a few hundred milligrams to 2.5 Gm. per liter. If glutamine is Cheney's heat labile factor, the inability of some investigators to duplicate Cheney's results might be attributed to variation in the amount of the factor in the juices of different cabbages.

William Shive, Ph.D., professor of chemistry and research scientist at the Biochemical Institute, University of Texas, and his co-authors presented this report for the Section on Internal Medicine ot the Texas Medical Association annual session in Dallas, April 29, 1957, as a contribution from the Institute for Clinical Research, Clayton Foundation for Reseorch, Biochemical Institute, and Department of Chemistry, University of Texas.

Glutomine hos been compared with os the heot lobile foctor in row cobbage juice which Cheney reported effective in treotment of peptic ulcer. In the preliminory study reported here, 46 of o group of 57 potients with peptic ulcer were given glutomine ot some stage of treotment. The results suggest thot glutomine moy be useful in peptic ulcer therapy.

Glutamine is known to have a role in the biosynthesis of the hexosamine moiety of certain mucoproteins,[1] and could stimulate mucin synthesis which should benefit peptic ulcer patients. On this basis, a new approach to the treatment of peptic ulcer was undertaken.

In this investigation, a preliminary study has been made on the evaluation of glutamine in the treatment of peptic ulcer with a group of 57 patients, of whom 46 were given glutamine at some stage of their treatment and 11 served solely as controls.

METHODS

The dosage of 1.6 Gm. of glutamine* daily was selected on the basis of the average glutamine content of a liter of some of the fresh cabbage juices. In general, the patients were given directions to take two 200 mg. capsules of glutamine four times daily, 1 hour after meals and before retiring. Each patient was given a 12 day supply of glutamine and returned for additional supplies as needed. By this procedure, it was possible to check whether the patients followed the prescribed daily dosage. The progress of the treatment was followed subjectively to determine the time required for symptoms to disappear, and objectively by following the patients clinically and determining radiologically the size of the ulcer niche at approximately 2 week intervals. Ulcers were considered to be healed when a niche was no longer detectable.

From patients being examined on a routine basis by the radiologists participating in this study, patients were selected with easily demonstrated ulcers with an area of more than 10 sq. mm. Special efforts were made to begin treatment with glutamine as rapidly as possible after the initial radiological demonstration of an ulcer. The patients were with two exceptions private patients, and with few exceptions were ambulant.

RESULTS†

Preliminary Group.—Glutamine was administered initially to a group of 12 patients who also were treated with antacid and antispasmodic on a bland diet (after initial milk and cream regimen if needed).

**Glutamine for this study was donated by the Merck Sharp and Dohme Division of Merck and Co., Inc. The authors are indebted to Dr. Karl Folkers and Dr. Nathaniel S. Ritter for their cooperation in making this material available and for valuable criticisms during the course of the work.*

†Since this preliminary report was submitted, a study of a group of patients with peptic ulcers resistant to conventional therapy even after long periods of treatment included 2 patients whose ulcers had not healed after 8 weeks of glutamine therapy.

These patients received glutamine at various stages of conventional therapy, and their response is indicated in table 1. No appreciable difference was noted in the response of patients given glutamine from the outset and of patients treated conventionally for a short period, since the ulcers of the majority of both types of patients healed in about 2 weeks. The ulcers of patients on prolonged conventional therapy without appreciable response healed in 3 of 4 cases but only after 4 to 8 weeks of glutamine administration. The other patient showed no response in 10 days and subsequently was treated surgically.

Glutamine Group.—The results from the preliminary group of patients were sufficiently encouraging to suggest that a study of the effect of glutamine alone would be worth while. Accordingly, a series of 24 patients with either gastric or duodenal ulcer were treated with glutamine. In general, the patients of this group were not instructed to change their diet except to omit alcoholic beverages and highly seasoned or fried foods. No medication other than glutamine was administered unless it had been administered for more than 6 months before the discovery of the present ulcer. The results of this study are summarized in table 1. The ulcers of half of the patients were healed at the first radiological reexamination at approximately 2 weeks. These patients were usually free of pain in 1 to 3 days with none having pain beyond the eighth day. The ulcers of 8 of the 12 remaining patients were healed at the second radiological reexamination at approximately 4 weeks. The patients with ulcers healing at this period were usually free of pain within a few days with none having pain beyond the seventh day. Thus, 20 of the 24 patients were free of pain by the ninth day. The ulcer of 1 patient did not heal until the third radiological reexamination after 41 days but was free of pain on the thirtieth day, and the ulcer of another patient persisted until the fourth radiological reexamination at the fifty-eighth day, but was free of symptoms at the sixteenth day. Thus, ulcers healed in 22 of 24 of the patients with only 2 requiring more than 1 month of treatment.

Only 2 patients of 24 did not heal during treatment with glutamine. One of these, a patient with partial obstruction given glutamine as a last resort before gastric resection and vagotomy, did not show any beneficial effect in 2 weeks and subsequently was treated surgically. The other patient improved markedly during the first 2 week period, but subsequently did not follow instructions and withdrew from the study. Eight months later, the patient again was given glutamine for a period of 4 weeks with the ulcer healing at this time.

Double-Blind Study.—In order to control psychological factors, a group of 21 peptic ulcer patients were given capsules containing glutamine or lactose. The clinician, radiologist, and patient did not know which was being administered. In addition, this group of patients received conventional therapy (bland diet, antispasmodic, and antacid). Otherwise, the study of this group was analogous to the group receiving glutamine and bland diet.

The summary of the results of this study are presented in table 1. Of 21 patients, 14 received lactose and 7 received glutamine. In the control group receiving lactose, the ulcer of 1 was healed at the first radiological reexamination at 2 weeks. The ulcers of 6 additional patients healed by the second radiological reexamination after approximately 4 weeks. Three of the 7 patients with ulcers not healed by the second radiological reexamination finally were given glutamine, 1 each after 4, 7, and 14 weeks, with subsequent healing of the ulcers in 4 or less weeks after glutamine therapy was instituted. The ulcer of 1 patient receiving lactose improved markedly during the first 2 weeks so that its presence was questionable at the first radiological reexamination; however, on the second and third reexamination, the ulcer was easily detected.

TABLE 1.—*Summary of Preliminary Study of Peptic Ulcer Treated with Glutamine.*

Group	No. of Patients Total	No. of Patients Withdrew Before 2nd Re-Ray	No. of Ulcers Healed 1st Re-Ray 2w*	1st Re-Ray 4w*	2nd Re-Ray 4w*	2nd Re-Ray 6w*	Total Healed by 2nd Re-Ray	Total Not Healed by 2nd Re-Ray
Preliminary	12	2	6†	–	2	2†	10	1
Glutamine	24	2‡	12	1‡	8	–	21	2
Double-blind								
Lactose	14	0	1	–	6	–	7	7
Glutamine	7	0	2	2	3	–	7	0

*Approximate number of weeks.
†One patient with 2 ulcers in this group.
‡One patient withdrew, treated again 8 months later with ulcer healing in 4 weeks.

The ulcers of all of the patients receiving glutamine were healed by the time of the second radiological reexamination in approximately 4 weeks. Two were healed in 2 weeks, but 2 patients did not return for the first reexamination until after 3 weeks, at which time the ulcers of both patients were healed. Three were markedly improved in the first 2 weeks and healed by the time of the second radiological reexamination.

DISCUSSION

The average healing time for peptic ulcers reported in different studies varies from slightly more than 2 weeks to 9 weeks for patients treated conventionally with antacids, antispasmodics, diet, frequent feedings of milk, and hospital care.[6,10,11,12,16] Similar variations

have been reported for ambulant patients with one study showing an average healing time of about 12 weeks.[10, 15] One study of five groups involving a total of 175 patients reports that the percentage of completely healed peptic ulcer after 1 month of treatment varied from 16 to 31 per cent among the groups.[7, 8]

The average healing time of peptic ulcer in patients treated with glutamine and a bland diet was 22 days with half of the ulcers healed in approximately 2 weeks and four-fifths healed in approximately 4 weeks. Since earlier work has demonstrated little difference in the rate of healing of gastric and duodenal ulcers in patients treated with cabbage juice, the results compare favorably with an average of 21.4 days for the healing time of gastric ulcer in patients treated with cabbage juice.[11] The response of this group of 24 patients treated with glutamine was better than most reported responses of groups of patients receiving the usual therapeutic regimen including diet, antacids, and antispasmodics. However, proof of a beneficial effect on the healing time of peptic ulcers of such a regimen is lacking. It has been concluded from several studies that dietetic treatment of peptic ulcer as at present practiced does not hasten healing of the ulcer and may delay it.[7, 8, 10] Milk administered by continuous drip allows pain to subside more rapidly, but does not significantly decrease the healing time of an ulcer.[7, 8, 10] Hospitalization has been reported to decrease the healing time, but the therapeutic factor could be bed rest or supervised diet.[7, 8, 10]

Confidence of the patient in the treatment also may be a factor. For example, Gill[9] has reported that a series of 20 consecutive patients with chronic gastric ulcers were given a daily injection of 1 cc. of distilled water and were not restricted in their diet, hospitalized, or given any medication. All except 1 lost their pains within a few days; the 1 became pain free after 4 weeks. All healed as determined gastroscopically in the usual time, 4 to 8 weeks from the start of treatment.[9]

To control such psychologic factors, a double-blind study is essential. The preliminary results from such a study show (table 1) that about half of the patients respond to treatment in 1 month on conventional therapy with placebo; in contrast all of the patients on such therapy with glutamine responded within this period.

The results of this preliminary study with glutamine suggest that glutamine is probably more effective alone than the commonly used therapeutic regimen of diet, antacid, and antispasmodic in promoting healing of peptic ulcer. Glutamine appears to improve the response of patients to the latter regimen. To determine whether antacid and antispasmodic therapy improves the response to glutamine will require further study.

SUMMARY

In a preliminary study of 57 patients on the evaluation of glutamine in the treatment of peptic ulcer, an initial group of 12 patients treated with conventional therapy were given a glutamine supplement at the outset and at various times after conventional therapy was begun. Ten of this group continued glutamine therapy beyond 12 days, and the ulcers of 8 of the patients were healed by the first or second radiological reexamination at 2 or 4 weeks, respectively. Of 24 patients treated with glutamine alone, the ulcers of 12 healed by the first radiological reexamination at 2 weeks and the ulcers of 8 more patients healed by the second reexamination in approximately 4 weeks. In a double blind study of 21 patients given either lactose or glutamine in addition to a regimen of diet, antispasmodic, and antacid, 14 received lactose and 7 glutamine. The ulcers of 7 receiving lactose healed by the second radiological reexamination at approximately 4 weeks while the ulcers of all of the patients receiving glutamine healed by this time.

The authors are indebted to Drs. Emmett A. Doles, J. H. Lawson, H. E. Holtz, and G. G. Zedler for their assistance in some of the radiological work; to Drs. Wylie F. Creel, Peter F. Madonia, Greenwood S. Wooten, Jr., E. V. Chauvin, Ruth M. Bain, Walter K. Long, L. C. Paggi, T. J. Archer, Claud A. Martin, Nelson L. Schiller, Robert E. Bratton, H. Renfert, Jr., J. T. Phillips, and Terrence N. Watt for assistance with some of the clinical evaluations; and to the many patients who volunteered to participate in this study.

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ABSTRACT OF DISCUSSION

DR. BELTON G. GRIFFIN, Houston: In attempting to evaluate a drug for use in any disease, we must first know the natural history of the disease. It is well known that peptic ulcer is a periodic disease which gets well with any or no therapy when only the individual episodes are considered. This makes evaluation of therapy especially difficult.

Others have obtained "cures" of peptic ulcer in a high percentage of cases using distilled water injections, histamine injections,* and a wide variety of other agents such as anthelone, enterogastrone, chlorophyll, parathyroid extract, insulin, and amino acids. Undoubtedly, the "tincture of enthusiasm" dispensed by the original investigators played some part in the good results obtained.

The present authors used glutamine in 46 patients with radiologic healing in four-fifths at the end of 4 weeks, a figure not too different from that obtained using many other agents enumerated previously. They report an average healing time of 22 days as compared to 2 to 9 weeks by others. However, they rechecked their patients after 14 days' therapy while the groups reported by others and used for comparison were not rechecked until much later, thus making their use as controls invalid. In the double-blind control series the authors report only 50 per cent healing of the controls in 4 weeks as compared to 100 per cent healing in the small treated group.

I hope the Austin group will continue their observations and be able to report on a much larger controlled series with similar good results, and that the somewhat skeptical remarks offered today in a spirit of humility will prove to be entirely erroneous.

**Bernstein, B. M.: Histamine in Treatment of Peptic Ulcer, Am. Int. Med. 26:852-857 (June) 1947.*

Enzyme Tests May Be Dangerous

The misuse of enzyme tests for controlling insulin intake in diabetes may have "dire consequences," according to the September-October issue of *Diabetes.* The report is based on a study by Dr. Victor Jablokow, Merril Hutchins, Sc.B., and Dr. Edwin M. Knights, Jr., from the department of pathology, Harper Hospital, Detroit.

The authors describe results of their application of two enzyme preparations. A total of 1,940 tests were performed on 360 glucose dilutions in urine by 36 physicians and technologists. While both preparations proved highly accurate in detecting urinary sugar, one gave "misleading results" with glucose concentrations greater than 0.1 per cent. Even when the glucose dilutions were as high as 5 per cent, only 32 of the 108 samples read as "four plus." "Higher concentrations of glucose were consistently underevaluated, a situation which could prove dangerous in the poorly controlled diabetic," the authors assert.

The report also warns that the extreme sensitivity of both of these tests to minute concentrations of glucose in the urine may lead the diabetic patient to overdose himself into insulin shock.

Intravenous Cholangiography And Cholecystography

CURTIS H. BURGE, M. D.

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THIS REPORT includes a total of 150 intravenous cholangiograms and cholecystograms done at Methodist Hospital in Houston on 140 patients between September, 1954, and January, 1957. Sixty-one patients had had previous cholecystectomies, 78 still had their gallbladders, and 1 had been told that his gallbladder was removed many years before but the cholecystogram and subsequent operation did not support this.

Dr. Curtis H. Burge, chief radiologist, Methodist Hospital, and clinical professor of radiology, Baylor University College of Medicine, presented this paper for the Section on Radiology April 29, 1957, at the Texas Medical Association annual session in Dallas.

Experience with intravenous cholangiography and cholecystography over a period of approximately 2½ years is reviewed. The author's experience has been confined to the use of one brand of contrast medium, which so far has produced no serious side effects. The value of tomography is discussed, and an attempt made to determine the true value of the procedure and its indications and contraindications, especially in jaundiced patients.

The first 50 or more examinations were done with 40 ml. of Cholografin, but the majority were done with 20 ml. of Cholografin methylglucamine. There did not seem to be any significant difference in the density of these media on the roentgenograms, and the number of untoward reactions from the injections was roughly the same. No serious reactions were encountered and, though no accurate record was kept of the reactions which did occur, they did not seem to exceed 10 per cent which is approximately the same reaction rate encountered with the newer contrast media used for intravenous urography. The most common reaction encountered was nausea, which was

frequently followed by vomiting. The number of patients who became nauseated seemed to be definitely reduced by injecting the drug slowly, that is, 20 ml. in not less than 3 minutes. In the absence of known or suspected sensitivity to the preparation, Cholografin seems to be contraindicated only when various tests reveal poor kidney function in association with liver damage.[4]

One hundred sixteen of the 150 examinations (77.3 per cent) were considered satisfactory (table 1). Twenty-nine showed no detectable Cholografin in the biliary ducts, and in 5 the concentration was insufficient to give any definite information.

TABLE 1.—*Findings in 116 Satisfactory Examinations with Cholografin.*

Cholangiograms (patients with previous cholecystectomy)		
Normal (size of ducts discounted)		33
Common duct stones		3
Hepatic duct stones		0
Cystic duct stumps		10
With stones	4	
Without stones	6	
Combination cholangiograms and cholecystograms		
Normal visualization, ducts and gallbladder, no stones		35
Normal visualization, gallbladder only, no stones		6
Nonvisualization of gallbladder, ducts visualized		17
Nonopaque stones in ducts, gallbladder, or both		12

Of the 29 examinations with nonvisualization only 3 were known to have serum bilirubin values less than 1.0 mg. per 100 cc., the accepted upper limit of normal in this laboratory. One with a serum bilirubin of 0.8 mg. per 100 cc. 4 days before the intravenous cholecystogram died later with portal cirrhosis and primary liver carcinoma. Another patient had several determinations ranging between 0.4 and 0.6 mg. per 100 cc., but he proved to have stones in the hepatic ducts and partial stricture of the common bile duct. One with a value of 0.8 mg. per 100 cc. showed microscopic evidence of periportal inflammation by biopsy.

TECHNIQUE

The patients are given 2 ounces of castor oil the evening before the examination and nothing by mouth after midnight. A preliminary 10 by 12 inch film of the biliary region is made and checked by the radiologist. A drop of contrast medium is placed in the patient's eye at least 20 minutes prior to the injection, and if the eye does not show conjunctival redness or edema of the lids and the patient is not known to have serious allergies, 20 ml. of Cholografin methylglucamine is injected intravenously over a period of 3 minutes or more.

The patient is given 30 ml. of paregoric in an equal amount of water as soon as the injection is completed. Paregoric is used as a matter of convenience though I prefer to use 7.5 mg. of morphine subcutaneously to produce contraction of the sphincter of Oddi.

Many patients in this series had roentgenograms made at 10 minute intervals following the injection, but after reviewing these, there seems to be no necessity for making the first film in less than 30 minutes. The radiologist checks the 30 minute film and decides what additional films are to be made since standardization of this procedure is not practical and each patient must be treated individually.

The biliary duct system is usually demonstrated within 20 to 60 minutes after the injection, but the gallbladder is usually not filled adequately until 1 to 3 hours after the injection (fig. 1). When the contrast medium first begins to concentrate in the gallbladder, it is usually poorly mixed with the bile and it may produce an appearance suggesting nonopaque stones. A few patients had films made at hourly intervals for 8 hours, 1 showing fairly good concentration of the contrast material in the gallbladder at 8 hours and another showing no concentration until 24 hours later. Both of these had impaired excretion of the material because of primary liver disease.

The use of paregoric or morphine to produce contraction of the sphincter of Oddi apparently has aided significantly in obtaining better concentration in the duct system.

Body section radiography (tomography) is helpful in many cases but is not necessary routinely (fig. 2 and 3). Tomography is used at Methodist Hospital in those cases with confusing gas shadows or with substandard concentration of the contrast material. The ducts stand out clearly on many tomograms when they are poorly visualized in conventional roentgenograms. A scout tomogram is made using the distance from the table top equal to half the anteroposterior diameter of the patient through the lower rib cage, and three or four additional films are made usually at 1 cm. intervals closer to the table top. The gallbladder is more anterior in position than the ducts, and it is important to include a level which shows the most dependent portion of the gallbladder with the patient in the prone position since stones usually gravitate to this area.

INDICATIONS

Nonvisualization of the gallbladder by the oral method. This procedure should not be employed in patients who have not had their gallbladders removed until after a technically satisfactory oral cholecystogram has failed to give all desired information. The intravenous method is valuable in patients whose gallbladders fail to be visualized by the oral method

and show no opaque stones. If the biliary ducts concentrate Cholografin and the gallbladder does not, there is mechanical obstruction of the cystic duct since inflammatory changes alone will not prevent concentration of the material in the gallbladder. Records of 35 of the patients in this series were available who had not had cholecystectomies and who had been examined previously by the oral method resulting in nonvisualization of the gallbladder. In 12 of the 35 there was satisfactory visualization of the biliary ducts but nonvisualization of the gallbladder by the intravenous method because of obstruction of the cystic duct by stones. Twelve of the 35 had nonopaque stones demonstrated in the gallbladder, biliary ducts, or both by the intravenous method which could not be demonstrated by the oral method (fig. 4). In 11 of the 35 there was visualization of both the biliary ducts and gallbladder by the intravenous method

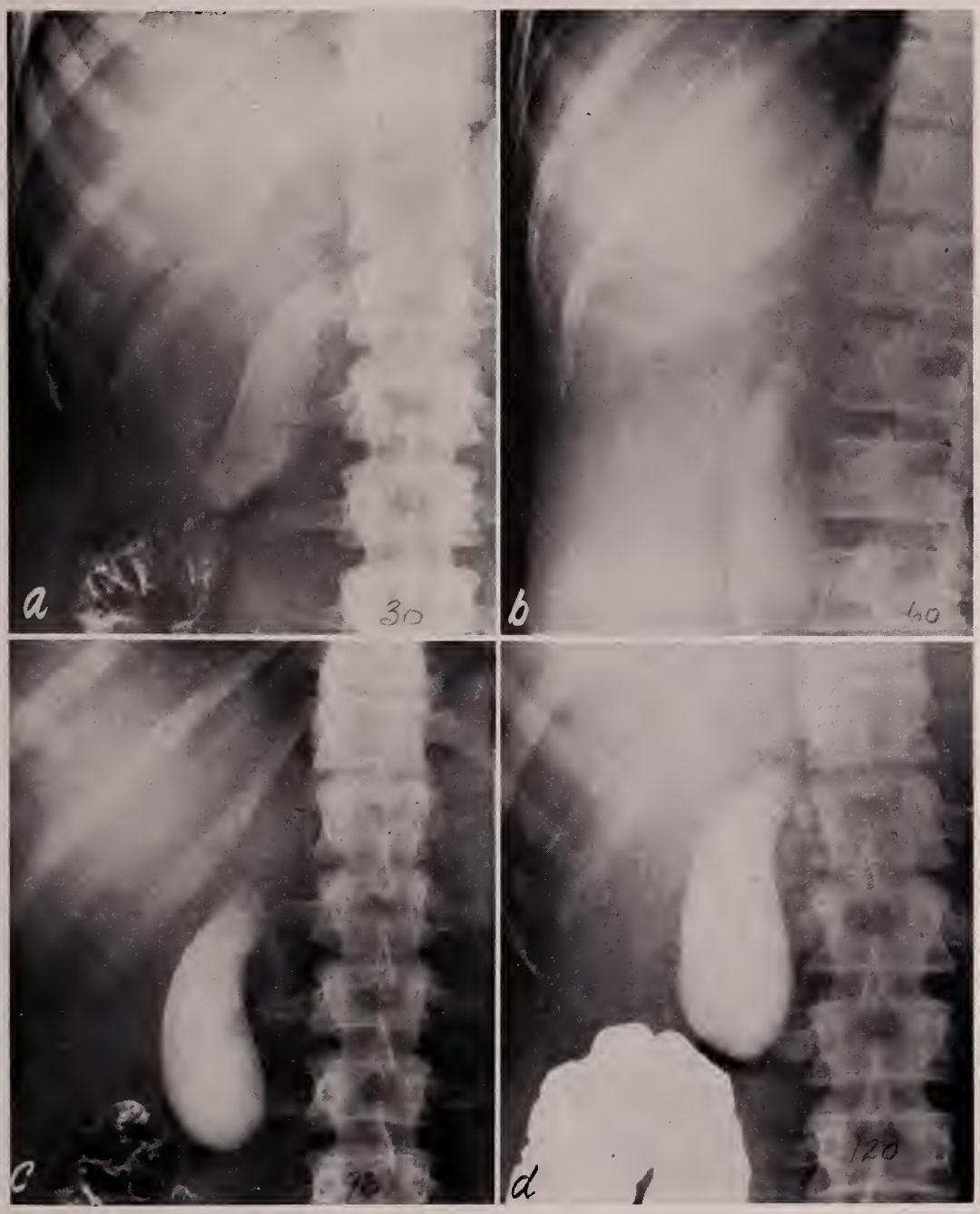

Fig. 1. Normal cholangiogram and cholecystogram are shown at (a) 30, (b) 60, (c) 90, and (d) 120 minute intervals following the intravenous injection of 20 ml. of Cholografin methylglucamine.

without evidence of stones. Most of the latter were not operated upon but at least 2 were shown to have acute or chronic cholecystitis.

Faculty absorption of oral preparation in the gastrointestinal tract. The intravenous method can be used in patients with severe vomiting, diarrhea, and other abnormalities which might prevent a satisfactory oral cholecystogram.

Differentiation between obstructive and nonobstructive jaundice. If a normal common bile duct

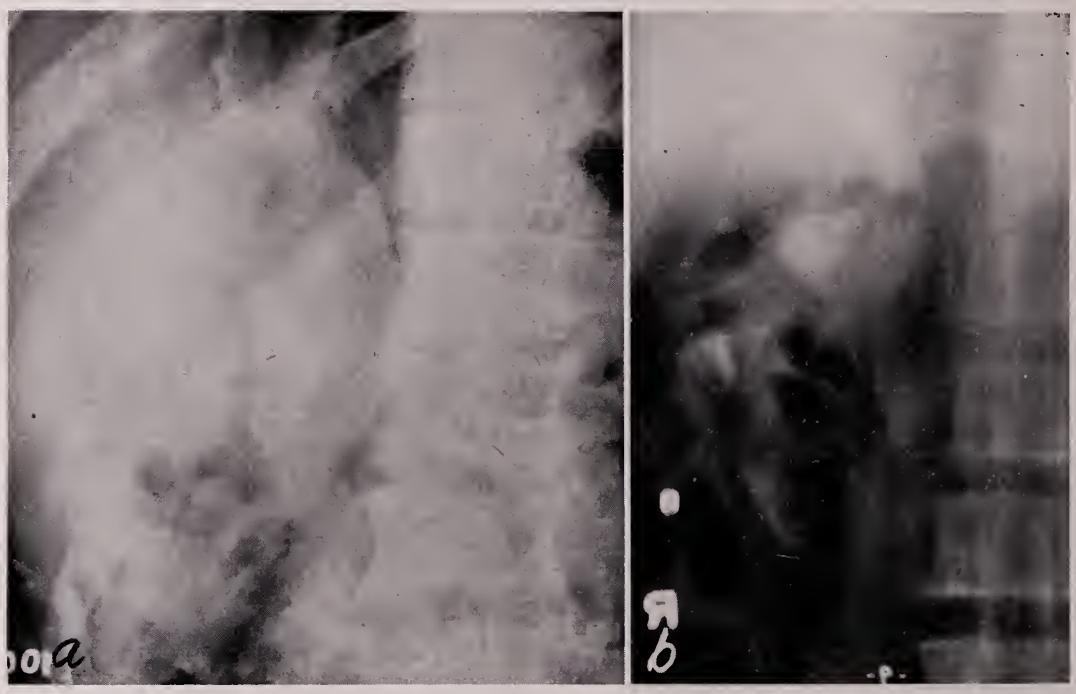

Fig. 2. a. A stone in the common bile duct is difficult to differentiate from a gas shadow without tomography. The gallbladder is not visualized.

b. Tomogram shows nonopaque common bile duct stone clearly and also shows the gallbladder with a nonopaque stone at the junction with the cystic duct.

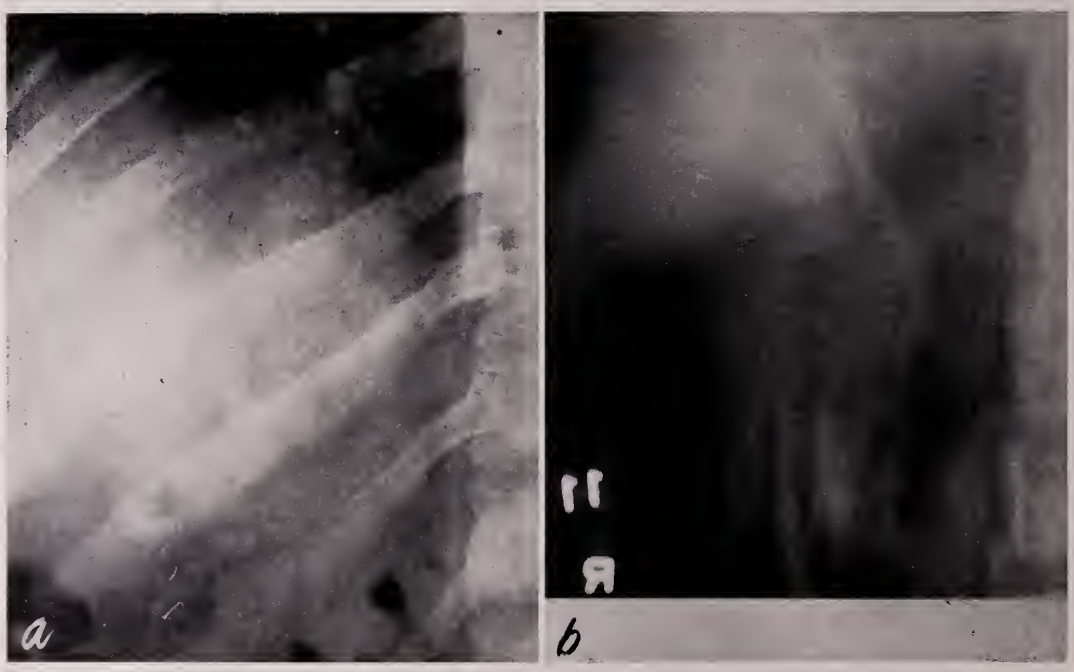

Fig. 3. Without tomography the gallbladder is shown to contain stones, but there is no indication of the common duct stones shown clearly in the tomogram (b). Tomograms at other levels showed the stones in the gallbladder more clearly.

can be demonstrated in a jaundiced patient, extrahepatic obstruction is ruled out as the cause of the jaundice. Nonvisualization frequently occurs in jaundiced patients and this results in no information regarding the cause of the jaundice. Rosenblum and Schwartz[5] believed that the procedure is justified in jaundiced patients when the serum bilirubin does not exceed 1.7 mg. per 100 cc., especially if serial determinations of the serum bilirubin show the jaundice to be subsiding. A satisfactory cholangiogram was obtained in 1 of the patients in this series with nonobstructive jaundice whose serum bilirubin level was 5.7 mg. per 100 cc., and satisfactory cholangiograms on patients with obstructive jaundice have been reported with serum bilirubin levels of 7.5,[2] 6.3,[1] and 4.4[1] mg. per 100 cc.

Postcholecystectomy patients whose symptoms continue or recur. One of the patients had her gallbladder removed and it was filled with stones, but the surgeon did not explore the common bile duct.

Fig. 4. a. Nonvisualization of the gallbladder is noted by oral cholecystography.

b. Intravenous examination demonstrates multiple nonopaque stones in the gallbladder and a relatively normal appearance of the biliary ducts.

Fig. 5. Multiple nonopaque stones in the common bile duct are demonstrated within 3 or 4 weeks after cholecystectomy.

Fig. 6. Dilated cystic duct stump contains four nonopaque stones approximately 5 years after cholecystectomy.

She had an attack of colic before she left the hospital following her cholecystectomy, and the intravenous cholangiogram revealed several nonopaque stones in the common bile duct (fig. 5). Dilatation of the cystic duct stump after cholecystectomy to form a so-called "reformed gallbladder" is apparently not too uncommon, and stones are sometimes demonstrated in these pouches (fig. 6). A normal intravenous cholangiogram in a patient who previously had cholecystectomy and whose symptoms continue is valuable for purposes of reassurance to the patient.

SUMMARY AND CONCLUSIONS

Intravenous cholangiography and cholecystography are valuable procedures when indicated and seem to be no more dangerous and no more prone to produce undesirable side effects than intravenous urography.

Intravenous cholecystography should not be employed unless a technically satisfactory oral cholecystogram has failed to give sufficient information.

The intravenous procedures are used to best advantage in patients with nonvisualization of the gallbladder by the oral method and in patients with previous cholecystectomy who are having symptoms referable to the biliary tract.

Failure most often occurs in jaundiced patients, but the procedure seems worth trying even in the presence of jaundice when the serum bilirubin does not exceed 1.7 mg. per 100 cc., especially if the jaundice is subsiding.

The use of 30 ml. of paregoric by mouth or 7.5 mg. of morphine subcutaneously to produce contraction of the sphincter of Oddi seems to enhance the concentration of Cholografin in the biliary duct system.

Tomography is of great value in doubtful examinations in which there is at least some concentration of the material in the biliary ducts or gallbladder, but it is not necessary to use tomography routinely.

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Bronchial Asthma In Children And Adults

Treated by the Prophylactic Use Of an Iodide-Containing Bronchodilator Drug

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EVERYONE is well acquainted with the severe, continuous, and intense dyspnea associated with status asthmaticus. To the layman, it is equivalent to the act of drowning. This complex condition nearly always requires hospitalization, in spite of the introduction into modern therapy of the wonder drugs, the steroids. This condition still taxes the ingenuity and efforts of even the best clinicians. It is a condition which all physicians like to avoid. In recent years, since the advent of the steroids, more importance has been placed on the treatment of bronchial asthma than the solution of the basic causes and their prevention.

Dr. Bernard T. Fein read this paper in the Session on Allergy before the Section on Miscellaneous Topics of the American Medical Association June 3, 1957, in New York.

Ninety cases of branchial asthma were studied using a branchodilatar drug cantaining patassium iadide. The drug was compared with other branchadilatars with a control graup. In the graup using the potassium iadide, incidence af severe cases af asthma and af cases requiring haspitalization was reduced. Side effects, especially nervausness, were at a minimum, apparently because af the low dasage usually emplayed.

Normal bronchial secretions form a two layered covering for the bronchial mucosa, the outer layer being mucus and the under layer, a serous coating.[10]

From the University of Texas Postgraduate School of Medicine; Pediatric Allergy Clinic, Robert B. Green Memorial Hospital; and Allergy Clinic, Veterans Administration Regional Office.

In the presence of allergy, there is an increase in mucin produced by the bronchial glands and by increased numbers of goblet cells.[6] As this mucin content increases, there is a sharp rise in the viscosity.[3] With the increase in viscosity of the mucin, ciliary activity is altered and loses its ability to clear the bronchial tree.[2] The cilia become frozen and lose their ability of propulsion.[11] This loss of function is the precursor and the probable basis for mucous plugging, bronchospasm, and the complex state called status asthmaticus.[7] It can be concluded that cleansing and clearance of the bronchial tree and maintenance of normal ciliary action is dependent upon the maintenance of normal bronchial secretions. This in turn is the best way to prevent status asthmaticus and possible death.[8]

It has been shown that iodides given orally are excreted into the bronchi within 15 to 25 minutes after ingestion.[16] It was believed that the incidence and severity of bronchial asthma could be reduced by the prophylactic use of iodides, since bronchial secretory activity apparently would remain undisturbed.[1]

For this study, a preparation containing the usual formula—aminophylline, ephedrine hydrocholoride, and phenobarbital—plus the addition of potassium iodide was used (table 1). This drug was used to show the superiority of this combination over those bronchodilators in most common use today having the same ingredients but no potassium iodide. If this superiority was evident, then mild and moderate attacks of wheezing could be aborted through the maintenance of normal bronchial secretions by the iodides. Hyposensitization therapy usually conducted would stimulate adequate antibody response and make steroid therapy and hospitalization unnecessary.

CLINICAL MATERIAL

Ninety patients varying in age from 5 to 73 years were studied in the pediatric and adult allergy clinics from January, 1954, until December, 1956. The patients were selected from a group who, on the basis of history, physical examination, sputum studies, roentgenograms, electrocardiograms, and allergy skin tests, were proved to have bronchial asthma. They had been treated for mild, moderate, or severe episodes of asthma prior to this study. Twenty-six of the group gave a history of having had acute enough symptoms to necessitate hospitalization in spite of their routine oral or nebulized bronchodilator drugs. Some of this group had been studied at the clinics in the past, using Neopenil in an attempt to reduce the incidence of acute asthmatic paroxysms, triggered by acute upper respiratory infections.[5]

PROCEDURE

The patients were instructed to take their medications according to the following schedule. Those who recently had had severe paroxysms of asthma were given enough medication to take 1 tablet or 1 capsule every hour until the acute episode subsided. The dosage was then reduced to four times daily and further reduced to a maintenance level of morning and bedtime. Children's dosage was half that of the adults.

The patients who had been having moderate attacks were given 1 tablet or capsule every 2 hours, and the dosage was reduced to four times daily as improvement was evident, then further reduced to morning and night.

The patients who had been having mild episodes were advised to use 1 tablet or capsule at the first sign of wheezing, to repeat every 2 hours until relieved, and then to discontinue the medication.

Group I patients were given Mudrane* in half and full doses. Group II patients were given Amesec, Amodrine, and Tedral. Group III patients were given no bronchodilator drugs, but were given a placebo. All 90 patients were receiving perennial hyposensitization treatments with inhalants, pollens, and molds. All were given instructions for avoiding aggravating factors, and reactive foods were eliminated from the diet.

RESULTS

Table 2 shows the number of cases studied and the type of bronchodilator drugs used in each group. The resulting asthma in each is classified according to

**Mudrane was supplied by William P. Poythress and Company, Richmond, Va.*

TABLE 1.—*Comparison of the Contents of the Bronchodilator Drugs Used in 90 Asthma Patients.*

Contents	Mudrane	Amesec	Amodrine	Tedral
Aminophylline	2 gr. — 0.12 Gm.	2 gr. — 0.12 Gm.	1½ gr. — 100 mg.	2 gr. — 0.12 Gm. Theophylline
Ephedrine hydrochloride	¼ gr. — 15 mg.	⅜ gr. — 25 mg.	⅜ gr. — 25 mg. Racephedrine	⅜ gr. — 25 mg.
Phenobarbital	⅓ gr. — 20 mg.	⅜ gr. — 25 mg. Amytal	⅛ gr. — 8 mg.	⅛ gr. — 8 mg.
Potassium iodide	3 gr. — 0.2 Gm.	None	None	None

severity. It is seen that in the cases receiving Mudrane (group I), there was a total of 13 patients who developed wheezing. In group II, receiving bronchodilator drugs not containing potassium iodide, 22 patients developed asthma. In group III, receiving only placebo, 27 patients developed wheezing

TABLE 2.—*Classification of Acute Asthma Resulting in Each Control Group.*

Group	No. Cases	Type of Bronchodilator Received	Severity of Asthma Mild	Moderate	Severe
I	30	Mudrane.	5	5	3
II	30	Amesec, Amodrine, Tedral.	6	10	6
III	30	Placebo.	6	12	9

during the course of the study. It is seen that of those cases receiving the bronchodilator containing there were 3 cases of acute severe asthma; group II (Amesec, Amodrine, and Tedral) had 6 cases; and group III (placebo) had 9 cases. The number of patients hospitalized in group I was 1, which was 2 cases less than group II and 3 cases less than group III. potassium iodide, 1 patient developed less mild reactions, 5 patients less moderate reactions, and 3 patients less severe asthma than those in the bronchodilator group II not containing potassium iodide (Amesec, Amodrine, and Tedral). One patient in group I developed less mild reactions, 7 patients less moderate paroxysms, and 6 patients less severe asthma than those in the control group III.

TABLE 3.—*Cases Developing Acute Severe Asthma and Those in Each Control Group Requiring Hospitalization.*

Group	Total Cases	Acute Severe Asthma Cases	Hospitalized Cases
I (Mudrane)	30	3	1
II (Amesec, Amodrine, Tedral)	30	6	3
III (Placebo)	30	9	4

Table 3 shows the number of patients in each group who developed acute severe asthma and those requiring hospitalization. In group I (Mudrane)

SIDE REACTIONS

No serious side reactions occurred during the course of this study. One patient developed a palpable enlargement of the thyroid. She was studied by an endocrinologist, and the findings of radioactive iodine uptake studies proved to be normal. The enlargement disappeared a short time after the drug was discontinued. There were mild complaints of heartburn, salty taste, and occasional nausea at the onset of the treatment. There was less nervousness, irritability, and rapid heart rate with this drug.

COMMENT

Potassium iodide has been endorsed in bronchial asthma in numerous clinical studies.[4, 12, 14, 15] Likewise it has been condemned because of its side reactions. Cases of myxedema produced by prolonged iodide administration are reported, but they make up a very small percentage of the persons using the iodides in one form or another.[13]

Even though the use of iodides remains controversial, our prime interest in them at the clinics was to study their ability to prevent status asthmaticus and to reduce the need for steroid therapy and hospitalization. The addition of small amounts of potassium iodide with bronchodilator drugs was found to be superior to bronchodilator drugs used alone. Children seemed to respond more rapidly and with more lasting effect than did the adults. There was a minimum of side effects, especially the nervousness, which we attributed to the smaller quantity of ephedrine hydrochloride (15 mg., ¼ gr.) contained in this drug (table 1). We noted a lesser number of gastrointestinal complaints, which we thought resulted from the small amount of potassium iodide (0.2 Gm., 3 gr.) contained in the tablet used in group I. This amount is equivalent to approximately 6 drops of saturated solution of potassium iodide. Satisfactory tolerance also may be attributed to the incorporation of dicalcium phosphate as a buffering agent in the tablet. With this combination of drugs—aminophylline, ephedrine hydrochloride, and phenobarbital—it is apparently unnecessary to use high doses of potassium iodide, thus allowing for a minimum of side effects.

A new method of employing potassium iodide in the management of bronchopulmonary disease using aerosol therapy to liquefy bronchial secretions was reported.[9] This therapy, in addition to oral routes, may prove successful in those cases not assisted by the oral use of potassium iodide alone.

SUMMARY AND CONCLUSIONS

Ninety cases of bronchial asthma were studied over a 3 year period using a bronchodilator drug containing potassium iodide. The value of this drug was studied and compared with bronchodilators not containing potassium iodide, in an effort to prevent severe asthma. These drugs were compared with a control group. In the group using the potassium iodide, there was an evident reduction in the inci-

dence of asthma in the severe category and fewer cases requiring hospitalization. Side effects were at a minimum, apparently because of the low dosage of ephedrine hydrochloride and potassium iodide usually employed. The use of this drug is recommended in conjunction with all other methods of prophylactic therapy, because of its ability to produce effective response with minimum side effects.

Any method or route of administration of potassium iodide that will maintain normal bronchial secretions and in turn reduce the incidence of severe bronchial asthma should be given a fair trial in therapy.

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Mortality of Wage-Earners Steady

Mortality among insured American wage-earners and their families was about the same during the first half of the current year as in the corresponding period of 1956—6.6 per 1,000, the Metropolitan Life Insurance Company indicates.

The cardiovascular-renal diseases and cancer recorded somewhat higher death rates this year—increases of 2 and 4 per cent, respectively. Mortality from pneumonia and influenza dropped 12 per cent below the rate a year ago. Tuberculosis mortality continued to decrease, reaching an all-time low of 7.2 per 100,000.

Tetanus

Current Concepts Of Prevention and Management

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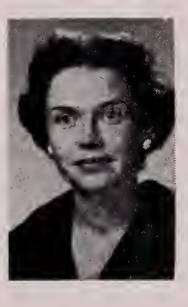
DESPITE a number of improvements which have been suggested in recent years, the treatment of tetanus is not yet satisfactory, and efforts to reduce the mortality from tetanus still must rely heavily on prevention. The protection afforded by active immunization has been proven durable, and there are indications that some commonly employed methods of achieving passive immunity are inadequate. This has served to enhance the importance of active immunization and to bring about a reevaluation of the care of injured patients.



Dr. Doris J. D. Adam and her co-author presented this paper before the Section on Pediatrics April 30, 1957, during the Texas Medical Association's annual session in Dallas.

Active immunity to tetanus is effective and long lasting, but passive immunity is unreliable. Suggestions for the administration of both toxoid and antitoxin are outlined in relation to past immunization history of the patient and the character of the wound. Conservative management of patients with tetanus also is discussed.

ACTIVE IMMUNIZATION

The efficacy of active tetanus immunization has been proven by the war experience of the American armed forces. With more than 2,500,000 admissions for wounds and injuries of all kinds during World War II, only 12 cases of tetanus occurred. Only 1 properly immunized person died. The civilian incidence of tetanus was 35 times that of the armed forces during this period.[6]

The duration of such active immunity has been the study of many workers.[7, 9, 11, 16] They have determined the antitoxin titers of actively immunized per-

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sons who had received their last injection of toxoid at times varying from 1 to 11 years before. All persons tested had a demonstrable titer.

In actively immunized people, it is generally accepted that titers of 0.1 to 1.0 antitoxic units per milliliter of serum afford protection, and that titers of 0.01 to 0.1 probably are protective. Animal experiments suggest that even lower levels may be protective.[14] Peterson and associates[11] demonstrated protective levels of 0.1 antitoxic units per milliliter or greater in all persons immunized or recalled within 5 years of testing. Stafford and coworkers[16] found that 88 per cent of a similar group had protective levels, with only 4 per cent falling below the probably protective level of 0.01 to 0.1 antitoxic units per milliliter. Both investigators found protective titers in 70 per cent of persons immunized as long as 5 to 11 years previously. An additional 25 per cent probably were protected, and only 5 per cent fell below 0.01 antitoxic units per milliliter.

After these residual antitoxin titers were obtained, an injection of tetanus toxoid was given and the response determined. A recall dose of toxoid was found to increase antitoxin titers to protective levels in 72 per cent of these patients by the fourth to the fifth day, and in 98 to 100 per cent by the seventh day, independent of the time of the last injection.

Active immunization can be achieved with fluid, alum precipitated, or absorbed toxoids. The most durable immunity seems to be established with the precipitated or absorbed toxoids, whereas there is evidence that fluid toxoid will produce a faster rise in antitoxin levels at recall.[8]

PASSIVE IMMUNIZATION

Following an apparent reduction in the incidence of tetanus achieved by the British during World War I, coincident with the use of tetanus antitoxin, it has become fairly standard practice to give an intramuscular injection of 1,500 units of antitoxin to injured persons in the hope of protecting them from tetanus. In an unimmunized patient who has not previously received tetanus antitoxin, this protection is attained within 24 to 48 hours,[17] but ends in 5 to 13 days.[4] Such a dose is questionably effective, in that a significant number of cases of tetanus have occurred in which 1,500 units of antitoxin have been given.[15] Stafford[16] reviewed the cases occurring in the Baltimore area and found that one-third had received antitoxin at the time of injury. In addition both Stafford and Miller[8] reported that mortality from tetanus is unaffected by the administration of antitoxin at injury in the usual dose of 1,500 units.

Larger doses of antitoxin produce correspondingly longer protection against tetanus; 10,000 units protect for an average of four weeks and 100,000 units protect for 6 to 8 weeks.[1] The protection afforded by any dose of antitoxin may be decreased by the past experience of the patient. Prior administration of tetanus antitoxin is found to reduce the duration of protective levels induced by subsequent injections. If the patient has had a serum sickness reaction in the past, the period of protection may be further shortened.[1] Thus, one of the chief dangers of antitoxin prophylaxis may lie in a false sense of security.

In addition, certain dangers are inherent in the use of tetanus antitoxin. Anaphylactoid shock occurred in 2 of 7,580 injections in a series reported by Moynihan,[10] and is estimated by Scheibel[14] to occur on an average of 1 in 100,000 injections. Serum sickness has been found to occur in 2.5[10] to 8.5 per cent[13] of initial injections of tetanus antitoxin. With subsequent doses this incidence increases to an alarming 28 per cent.[13]

WOUND FACTORS

Press' observation that 50 per cent of tetanus cases occurred in patients exhibiting either no wound or a wound of such trivial nature that the patient did not seek treatment[13] suggests that no injury can be considered exempt. There are wounds, however, which are more likely to be followed by tetanus, such as crushing or penetrating injuries. More extensive injuries may become complicated by tetanus after unusually short incubation periods. This probably is related to the quantity of necrotic tissue present. From the point of view of the time available to achieve a rise in the antitoxin titer, the age of the wound at the first opportunity for treatment becomes important.

Thus in wounds which are particularly extensive, or in those for which treatment is sought late, one must consider the advisability of strenuous prophylactic measures. Even if the person has been properly immunized, the use of tetanus antitoxin in addition to a recall toxoid injection is justified in these instances. It has been shown that such a combined immunization method is effective if the material is injected in different sites.[8] Experimentally, tetanus usually cannot be produced in the absence of necrotic tissue.[5] Therefore, with new or old wounds, adequate debridement and the open treatment of certain wounds is an essential part of tetanus prevention.

PREVENTIVE MEASURES

Examination of these facts have led to the grouping of patients into three general categories for consideration for tetanus prophylaxis.

1. In properly immunized persons whose last booster was received no more than 10 years before, and

whose injury is of ordinary proportions, debridement and a recall injection of fluid toxoid should suffice.

2. In properly immunized persons whose last booster was received more than 10 years before or who present a particularly likely wound, debridement and the simultaneous use of recall injection of fluid toxoid and tetanus antitoxin is indicated.

3. In unimmunized persons preventive measures should include debridement, tetanus antitoxin in doses of 5,000 to 30,000 units depending upon the wound, and the first toxoid injection of a planned active immunization procedure.

MANAGEMENT OF TETANUS

The high mortality rate associated with active tetanus has led to the constant search for new and better management. Many data have been accumulated concerning the effect on morbidity and mortality of each phase in the care of the patient, yet no one factor can be considered outstanding except in its relation to other measures.

No appreciable decrease in mortality has been noted following debridement of the wound, yet it would seem rational to remove a source of chronic infection if such surgery does not endanger the patient. Local infiltration of 10,000 to 20,000 units of tetanus antitoxin is recommended. The parenteral administration of 50,000 to 100,000 units of tetanus antitoxin on the first day of treatment seems sufficient to neutralize circulating toxin. There is some indication that smaller doses may be as effective[12] and that very large doses increase the mortality rate. This latter may be the result of severe serum reactions. Antibiotics have never been shown to shorten the course of tetanus and should be reserved for complicating infections.

Until effects of "fixed" toxin have subsided, one is primarily concerned with the problem of preventing tetanic spasms and convulsions. No ideal drug or combination of drugs has been found. Many types of sedatives and muscle relaxants have been used. In most instances difficulties encountered have been due to brevity of action coupled with a narrow margin of safety. Recently mephenesin and barbiturates have been recommended as a safe and effective combination in a rather well controlled series of patients.[18]

Tracheostomy has been looked upon with favor by some;[3] however, the complications are many. In severely ill patients with repeated laryngospasm, a tracheostomy performed early in the course may avert more serious difficulties. When delayed, the patient may be unable to withstand the procedure.

In order to evaluate any method of therapy, similar cases must be compared. Pratt has suggested comparison on the basis of (1) length of incubation, (2) rapidity of the progress of symptoms, (3) the severity of the illness at the time of admission, and (4) the frequency and severity of spasms or convulsions after sedation, and amount of sedation required. Depending on the findings, the cases then may be roughly classified into mild, moderate, and severe tetanus. Therapy which lowers the mortality rate in severe cases then can be considered of value.[12]

During the past 9 years there have been 22 patients admitted to the Children's Hospital of the University of Texas Medical Branch at Galveston with a diagnosis of tetanus. There were 5 patients with tetanus neonatorum, and the remaining 17 ranged from 2½ to 13 years of age. The over-all mortality was 36.3 per cent.

Although the group is small it serves to illustrate some of the difficulties in evaluating the treatment in a given series of cases. Between 1948 and 1954, 13 patients with tetanus were admitted. Of these, 7 survived and 6 died. Within the past 2 years 9 cases of tetanus have been treated, and 2 patients have died. Initially this suggests that therapy during the past 2 years has been better. By examining the records of all patients it is apparent that the method of treatment as far as drugs are concerned has not changed materially between the two periods.

Of 6 severely ill children admitted during the earlier period, 5 died, and of 4 similar patients admitted since 1955, 2 have died. It is important to note that mild and moderately severe cases in both groups had much better survival rates, 1 of 6 patients dying in the earlier period, and no patient dying in the latter period. These brief statistics emphasize, as others have, that severe cases of tetanus are more likely to be fatal, and that patients with less severe cases will survive if they do not succumb to therapy.[12, 2]

The slight improvement in mortality rates at our hospital is thought to be due to a more conservative approach to therapy. During the latter period an attempt has been made to standardize the methods of treatment used. All patients are admitted to a central area, and the wound, if present, is locally infiltrated with 10,000 to 20,000 units of tetanus antitoxin. The wound is then surgically debrided under light general anesthesia, and if tracheostomy seems indicated because of repeated difficulties with secretions or uncontrolled convulsions with periods of apnea and cyanosis, the procedure is carried out at the time of debridement. Fluids, electrolytes, and caloric requirements are supplied intravenously. When the patient requires less sedation and is able to handle his own secretions, tube feedings are used. Tetanus antitoxin in doses varying from 50,000 to 100,000 units is given on the first day of treatment only, one-half intravenously, the remainder intramuscularly. Intravenous barbiturates are used intermittently for the first few days, not to produce complete relaxation, but to alleviate spasms and convulsions. Oxygen and moisture are

provided, particularly if the patient has a tracheostomy. The bladder is catheterized and tidal irrigation employed. The patient is attended by nurses, and the more severely ill children are attended continuously by the physician, in our case a pediatrician and an anesthesiologist. All routine procedures such as injections, canula changing, and turning of the patient are scheduled to occur at one time, preferably at the point of deepest sedation. Each child is observed closely for serum reactions. Antihistamines and intravenous steroids have been used depending on the severity of the reaction. The patient is watched carefully for pulmonary complications, and frequent cultures of the nasopharynx and canulae are taken, with appropriate antibiotics used as indicated.

This plan as outlined has worked to the mutual advantage of the patient and of those caring for him, because of greater familiarity with the drugs and procedures used. It seems that the best care to be offered a patient with tetanus is that which generally follows some standard plan with allowances for individual variations. Once the source of toxin has been removed and circulating toxin neutralized, the problem is one of supporting the patient until the disease runs its course. Since the complications of tetanus are few, and the complications of therapy are numerous, a conservative approach is indicated.

SUMMARY

Active immunity to tetanus is effective, is long lasting, and can be stimulated quickly to high levels by recall doses. Passive immunity with tetanus antitoxin is unreliable and hazardous but when indicated should be given in doses larger than 1,500 units.

Suggestions for the administration of both toxoid and antitoxin are outlined in relation to past immunization history of the patient and character of the wound.

A flexible routine of care for the patient with tetanus which employs conservative measures is the most likely to prevent the complications of tetanus and of tetanus therapy.

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Indications and Contraindications For Various Anesthetics

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EVERY PHYSICIAN, whether he is an internist, surgeon, or pediatrician, should be able to select the anesthetic that is most suitable for his patient. The internist does not operate, but he does know when his patient is in need of surgical intervention.

Unfortunately, the universal anesthetic or technique has not been found. No single agent or method of administration is the best for all types of operations. The choice of anesthetic and technique should be governed by four factors, namely:

1. History of previous anesthesia.
2. Physical and laboratory findings.

3. The psychic and physical condition of the patient.
4. The type of operation proposed.

The various types of anesthetics in use at the present time are shown in table 1.

LIQUID ANESTHETICS

A brief discussion of the liquid anesthetics outlined in table 1 follows.

ETHER

Unquestionably ether is the most reliable anesthetic agent for relaxation. When other agents fail to relax, ether is drafted into service. Since its early introduction in anesthesia, ether has never failed to be utilized for overcoming the failures of other methods. Ether is still the most extensively used agent in spite of its great handicaps. However, the contraindications for the use of ether are many and should be observed. These are flammability, acidosis, idiosyncrasy, renal disease, advanced age of patient, cataract surgery, respiratory disturbance, atheromatous vessels, and increased intracranial pressure.

Ether is irritant to the mucous membranes and causes increased saliva and bronchial secretions. In light anesthesia this may lead to retching and vomiting. Postanesthetic pulmonary complications are more frequent with ether. Transient albuminuria is common, indicating mild renal damage. Consequently, ether is often used with other anesthetics to limit the dose of ether necessary.

TABLE 1.—*Types of Anesthetics in Use Today.*

I. General anesthesia
- A. Methods
  - 1. Indirect
    - a. Oral
    - b. Pharyngeal
    - c. Intratracheal
      - (1) Inhalation
      - (2) Insufflation
    - d. Rectal
      - (1) Ether
      - (2) Barbiturates
      - (3) Avertin
  - 2. Direct (intravenous): Barbiturates
- B. Agents
  - 1. Liquid
    - a. Ether
    - b. Chloroform
    - c. Vinethene
    - d. Ethyl chloride
    - e. Trichlorethylene
    - f. Vinamar
    - g. Fluothane
  - 2. Gas
    - a. Nitrous oxide
    - b. Ethylene
    - c. Cyclopropane

II. Local or block analgesia
- A. Procaine
- B. Cocaine
- C. Pontocaine
- D. Xylocaine

III. Spinal analgesia: One dose and continuous

IV. Caudal analgesia
- A. Sacrocaudal
- B. Continuous caudal

V. Hypothermia anesthesia

Dr. George J. Thomas, associate professor of surgery and chairman, Section on Anesthesia, University of Pittsburgh School of Medicine, and director, Department of Anesthesia, St. Francis General Hospital and Medical Center Hospitals, presented this paper as a refresher course at the Texas Medical Association annual session in Dallas on May 1, 1957.

Today's patient should be assured of complete oblivion from pain during surgery with a minimum of discomfort and risk. In addition, anesthesia should be selected to maintain the patient's vitality and reduce the effect of shock. The various anesthetic agents and techniques available—from general anesthesia to refrigeration analgesia—are reviewed with special attention to contraindications.

CHLOROFORM

Chloroform is certainly an excellent anesthetic for relaxation, especially in obstetrics when version and extraction are contemplated. Probably no other volatile anesthetic agent is capable of producing the relaxation that can be obtained with chloroform. However, this agent possesses many contraindications that should be observed.

These contraindications are acidosis; diabetes; anemia and asthenia; status lymphaticus in children; minor or prolonged operations; diseases of the heart, liver, and kidneys; any condition in which there is marked physiologic or mechanical interference with the respiratory function; increased intracranial pressure; and operations performed in upright position.

Chloroform is extremely toxic to young children. As a protoplasmic poison the evil effects of chloroform may not become evident until some time after administration. These late effects are known as "delayed chloroform poisoning." The symptoms include progressive weakness, cyanosis, pallor, restlessness, vomiting, delirium, coma, and death. The organs principally affected are the liver and kidneys. The pathologic picture is that of congestion, hemorrhage, degeneration, and central necrosis. The heart muscle may be pale and show signs of fatty degeneration. Hemorrhages are particularly frequent in the serous membranes and in the intestinal and stomach mucosae.

VINETHENE

Vinethene (vinyl ether), an inhalation anesthetic for short anesthesia, is of greatest value when rapid, easy induction and prompt recovery with a minimum of postanesthetic effects are desired. Administered by the open drop method, it is especially useful to produce light anesthesia when unconsciousness and freedom from pain are more important considerations than muscular relaxation. Vinethene also may be used with oxygen to supplement the gases, especially nitrous oxide and ethylene. Being a liquid, Vinethene

is easily transported and may be carried conveniently in the physician's bag.

Vinethene has its contraindications like other drugs, and they are acidosis, advanced age, debility, liver disease, renal insufficiency, and presence of cautery or flame.

When Vinethene is used, it is important that an open and free airway be maintained at all times. Cyanosis never should be tolerated when using this agent. Because of the danger of respiratory arrest, Vinethene should not be used in high concentration.

ETHYL CHLORIDE

Ethyl chloride, C_2H_5Cl, is a gas which boils at 12.5 C. It evaporates so rapidly that by virtue of this property it freezes the surrounding tissues and induces enough local anesthesia to serve for simple operations. The drug also may be administered by inhalation as a general anesthetic.

Although ethyl chloride may be used as a general anesthetic, its use as such should be discouraged. This is because of the narrow margin of safety between the maintenance and toxic doses. Collapse is more likely to follow ethyl chloride than any other anesthetic.

This anesthetic is useful in (1) the induction of anesthesia, that is, as a preliminary to ether anesthesia to obtund consciousness; (2) incomplete anesthesia, that is, that type of anesthesia without the maintenance stage, which goes a little further than the induction stage, approaching the stage of relaxation; and (3) a spray in local anesthesia.

Ethyl chloride is a fair agent for surgical procedures requiring no longer than 5 minutes. This agent is an excellent one to use for induction before ether anesthesia. Ethyl chloride is very potent and must be administered with great caution. The contraindications for the use of ethyl chloride are the same as those for chloroform, and in addition, ethyl chloride should not be used when muscular relaxation is necessary.

TRICHLORETHYLENE

Trichlorethylene is a clear, volatile liquid having a pleasant odor; is practically insoluble in water; and mixes with ether, chloroform, and most organic liquids. This agent is nonflammable in the anesthesia range. When mixed with oxygen, it becomes flammable at a concentration of 10.4 per cent. Impurities of hydrochloric acid and phosgene are liberated when trichlorethylene is exposed to naked flame. Trichlorethylene has no effect on the liver, kidneys, and metabolism.

Trichlorethylene is found useful for dressing burns and lacerations; reductions of simple fractures; orthopedic manipulations; minor procedures involving the eye, ear, nose, and throat; dental surgery; and relieving intractible pain and migraine.

It is not recommended for patients suffering with cardiac failure, active cardiac disease, and toxemia of pregnancy.

It can be used in the open drop method or with an anesthesia machine without soda lime absorber.

VINAMAR

Vinamar (ethyl vinyl ether) is a clear, colorless, volatile liquid with a characteristic ethereal odor, having a chemical structure intermediate between diethyl and divinyl ether. It has a tendency to undergo oxidation in the absence of a stabilizer.

Vinamar has been used for induction of anesthesia in children by the open drop technique. It is a satisfactory substitute for Vinethene, especially for patients with cardiovascular complications. It is known for its rapid onset of anesthesia. The induction and the recovery times are very brief, definitely shorter than the induction time with other agents.

Vinamar is used as an analgesic, as an adjunct to nitrous oxide-oxygen anesthesia, cyclopropane, and so forth.

Its contraindications follow: This agent must be considered flammable and the same precautions must be taken as with other flammable agents. Muscle relaxation is poor. Vinamar produces excessive cortical activity and must be avoided if patients show signs of this condition. Vinamar is not recommended when relaxation is essential.

FLUOTHANE

Fluothane, $CF_3ClBrCH$, is a clear, colorless liquid having an odor resembling chloroform. It is nonflammable, diffuses readily through rubber, and attacks metal, especially aluminum. The induction period is short in 1 to 2 per cent concentration. The maintenance requires 0.8 to 1.4 per cent concentration.

This agent is given in open drop technique in order to avoid building up a high concentration that may result in circulatory complications. It resembles chloroform in its action. The recovery is rapid; the usual period is 10 to 15 minutes. Fluothane is a bronchial dilator.

This agent should not be used on patients having cardiac disease.

GAS ANESTHETICS

Under the gas anesthetic agents are included nitrous oxide, ethylene, and cyclopropane.

NITROUS OXIDE

Nitrous oxide is the most popular of the gas anesthetic agents. It is a valuable agent because it is non-

flammable when used with oxygen alone. However, we must bear in mind that nitrous oxide as well as oxygen is nonflammable but will support combustion. Nitrous oxide is easy and pleasant to breathe. It is not irritating to the respiratory tract.

The contraindications for the use of nitrous oxide are these: advanced tuberculosis; valvular heart disease; cataract surgery (vomiting that follows gas anesthesia may be hazardous in cataract surgery); high metabolic activity; muscular, athletic, or alcoholic patients; and marked physiologic or mechanical interference with the respiratory function, necessary for muscular relaxation.

ETHYLENE

Ethylene is more valuable than nitrous oxide and gives better relaxation. However, the relaxation is not as effective as with certain other agents. Oxygen can be doubled with this agent. Ethylene should not be used if flame or cautery is employed about the head and neck.

CYCLOPROPANE

Cyclopropane is an excellent gas for many surgical procedures. It is a suitable agent for chest surgery because of high oxygen concentration and the potency of the agent.

Cyclopropane is contraindicated in cardiac diseases and irregularities. This agent is highly explosive when helium is not added to the mixture. Therefore, it should not be used when flame or cautery is being employed around the head or neck.

Epinephrine hydrochloride and certain other sympathomimetic amines should not be used during cyclopropane anesthesia because there may develop severe cardiac irregularities which may lead to ventricular fibrillation. Cyclopropane increases the irritability of the autonomic tissues of the heart more than chloroform or ether; therefore, it should be avoided in cases of cardiac irregularities.

INDIRECT METHOD OF ANESTHESIA

Intubation anesthesia has a wide range of usefulness and a definite place in surgery and anesthesia. It is a valuable adjunct to anesthesia. Many anesthetists hesitate to adopt intubation anesthesia because of the necessity for laryngoscopy. However, once intubation has been performed, the margin of safety to the patient is greatly increased. This type of anesthesia provides an immediate and effective means of artificial respiration. It also provides assured airway for the patient at all times regardless of his position on the table. Intubation anesthesia should be employed only by those specially trained in the technique. This method is contraindicated when there is either an acute inflammatory disease or a growth in the larynx or other surrounding tissues.

Rectal anesthesia has a place in surgery, especially in obstetrics. It is undesirable to use this form of anesthesia for the following reasons: (1) The method is unreliable. (2) Distention of the rectum is prone to occur. (3) Ulceration of the colon may result in complications.

Barbiturates and Avertin by rectum are useful as basal anesthetics. They are useful to avert the psychic shock that patients may experience when being transported from their bed to the operating table. When these agents are used rectally, it is wrong to assume that a large enough dose should be administered to produce general anesthesia. Massive dosage of these drugs administered at one time frequently proves fatal.

Contraindications are presence of shock, acidosis and toxemia, chronic infection with debility, and severe diseases of lower colon, liver, and kidneys.

DIRECT METHOD OF ANESTHESIA

The direct method of anesthesia refers to the intravenous administration of the barbiturates. The intravenous method of administering an anesthetic agent has a strong appeal to the experienced anesthetist, the surgeon, and the patient. This method has the further advantage of causing a patient to traverse from the first to the middle of the surgical stage of anesthesia within a period of 1 to 3 minutes. Such rapidity of action is an improvement over the 10 to 15 minute period required for inhalation anesthetics to take effect.

I wish to emphasize that Pentothal is not a drug with which liberties may be taken. Special care should be exercised in maintaining an efficient airway at all times. A gas machine always should be on hand and ready for use should respiratory depression or other complications present themselves. Finally, the drug should be administered by a thoroughly trained anesthetist who is competent to deal with any situation that may occur during the administration of this popular but potent drug.

Pentothal Sodium should not be employed or recommended when there is a marked physiologic or mechanical interference with the respiratory function. It is also contraindicated in inflammatory conditions of the neck complicated by edema of the glottis, and in tumors of the neck encroaching on the glottis and interfering with respiration. Children under 7 or 8 years of age, unless robust, are poor subjects. Apart from their natural fear and small veins, the inertia of the air in their narrow air passages hinders gaseous exchanges and creates an undesirable situation in view of their relatively high oxygen requirements. It is inadvisable to use this agent on

patients suffering with respiratory embarrassment due to cardiac decompensation. I feel that it is contraindicated in the presence of bronchiectasis, severe anemia, and shock. I believe also that Pentothal is contraindicated in abdominal surgery when deep relaxation is important. Furthermore, cases of intestinal obstruction react poorly to Pentothal Sodium alone. Pentothal should be supplemented with block or spinal analgesia in this type of surgery, or with nitrous oxide and oxygen and muscle relaxant.

LOCAL AND BLOCK ANALGESIA

Local and block analgesia are useful and have a definite place in surgery, especially in cases of head injury, shock, and gas poisoning. The contraindications can be briefly stated as follows: idiosyncrasy to epinephrine, procaine, cocaine, or their derivatives and youth of the patient with resulting inability to cooperate.

SPINAL ANALGESIA

Spinal analgesia is a valuable adjunct to surgery. It is being used with considerable satisfaction in operations involving the regions below the diaphragm. The contraindications may be briefly summarized as extensive cardiovascular disease; brain or cord tumor; syphilis—cerebral, spinal, or systemic; turbid spinal fluid; shock (spinal analgesia may be employed if shock is properly treated first); tuberculosis of spine; metastatic lesions of spine; skin lesions at site of proposed lumbar puncture; marked debility; pernicious anemia with symptoms referable to spinal cord; extreme youth and marked nervousness; preoperative hysteria; preoperative headaches of long duration; occurrence of headache at previous lumbar tap; family history of headache; symptoms of lesions of the central nervous system; poliomyelitis with residual symptoms; history of bad reaction from a previous spinal analgesia; and hypersensitivity to available drugs.

The advantage of continuous spinal anesthesia is that it provides a fractional dose of the anesthetic agent for longer and more difficult surgery. The operator does not have to work against time.

The disadvantages of continuous spinal analgesia are lapse of time required to perform the analgesia and the danger of breaking the needle in the back.

CAUDAL ANALGESIA

The sacrocaudal and continuous caudal analgesia are useful for saddle type anesthesia. The field is indeed limited but very satisfactory. There is less anesthetic shock with this technique. The disadvantages are purely technical. This technique is not applicable to patients with abnormalities of sacrum or low-lying dura. It cannot be used in the presence of local infection over the sacrum. Perhaps the most serious disadvantage is the time consumed in assembling equipment, making the injection, and allowing completion of analgesia.

REFRIGERATION ANALGESIA

Refrigeration analgesia occasionally is employed for amputation of the extremities. A tourniquet is applied and the limb is encased in ice, or refrigeration is obtained by use of a thermostatically regulated apparatus with refrigerated blankets or applicator over a period of 3 hours.

The results thus far have been satisfactory. The patients have more comfortable postoperative periods, with a reduction of mortality percentages. Because of the slowing up of the circulation in the frozen part, there is less absorption of the toxic products from the damaged extremity.

Refrigeration or *hypothermia* (more recent terminology) is becoming more popular for neurosurgery and certain types of cardiovascular surgery.

CONCLUSIONS

I have endeavored to give a brief review, with special attention to contraindications, of the various anesthetic agents and techniques available at this time. However, I wish to suggest that no longer should the leaders in medicine and surgery be satisfied with a form of anesthesia that simply renders the patient insensible to pain during the operation. They should insist upon maintaining the patient's vitality and reducing the effect of shock so that the patient may be as comfortable as feasible during recovery and convalescence. The patient of our time should be assured of complete oblivion from pain during surgery, with a minimum of discomfort and risk.

♦ Dr. Thomas, 1009 Duffield Street, Pittsburgh 6, Pa.

Heart Specialists Study Classification of Atherosclerosis

Fifteen outstanding scientists from five continents were invited by the World Health Organization to attend a five-day conference to study the classification of atherosclerotic lesions and to make recommendations for a unified nomenclature of the terms used in the various parts of the world. The meeting, held in Washington in October, was called by WHO and conducted by the Pan American Sanitary Bureau. The National Heart Institute, U. S. Public Health Service, collaborated.

Unemployment Compensation and The Physician's Payroll

MAURICE W. ACERS

Austin, Texas

THE AVERAGE Texas physician has an unemployment compensation tax rate of 2.0 per cent. His average payroll tax per employee during the past year was $47.17. Many physicians, however, could obtain Texas' minimum rate of 0.1 per cent and thereby lower the tax cost per employee to $2.36.

Maurice W. Acers is the employers' representative on the Texas Employment Cammission.

Texas physicians with as many as four employees are subject to a payroll tax for unemployment compensation. Some physicians unnecessarily may be paying more than the minimum tax rate. All physicians are invited to take advantage of the services of the Texas Employment Commission.

That difference between average and minimum was too much. Reducing the rate for the final period of 1957 and the year ahead is something any physician can do right now.

As your representative and as commissioner representing the 66,000 Texas employers subject to the Texas Unemployment Compensation Program, I will list some ways of reducing this tax after a brief discussion of how and why this tax is levied.

OPERATION OF LAW

Some physicians became liable for this payroll tax for the first time during 1956. Those employing fewer than eight people had not previously been affected. The Texas Legislature extended the coverage to include employers with four to eight employees, and that gave numerous workers in the medical world the protection of unemployment insurance. These physicians became subject to the beginning state tax of 2.7 per cent for the first $3,000 of annual wages paid their employees.

The Texas Legislature had no choice about extending the coverage. Federal laws had already provided for it, and the Texas solons acted only to secure for these physicians the advantages of our state taxation schedule.

The federal levy would have been a flat 3 per cent regardless of employer experience rating, which is determined by the unemployment compensation claims filed against an employer's record.

The state tax starts out as a total 3 per cent—2.7 per cent of the state levy and 0.3 for administration of the federal employment security program. But the Texas statutes allow for lower rates after 18 months in most instances. The total of state and federal tax paid by the average Texas employer with an experience rating was less than 1 per cent last year. In fact, the average state rate for all employers was 0.65 per cent and for rated employers was 0.44 per cent.

The federal take of 0.3 is static. But that state figure is something we can do something about. It is no small cost for the state's physicians either. During 1956 they paid $138,683 in state taxes. Without their experience ratings their year's bill would have been $187,245. At the state's minimum rate of 0.1 per cent these Texas physicians would have paid only $6,935.

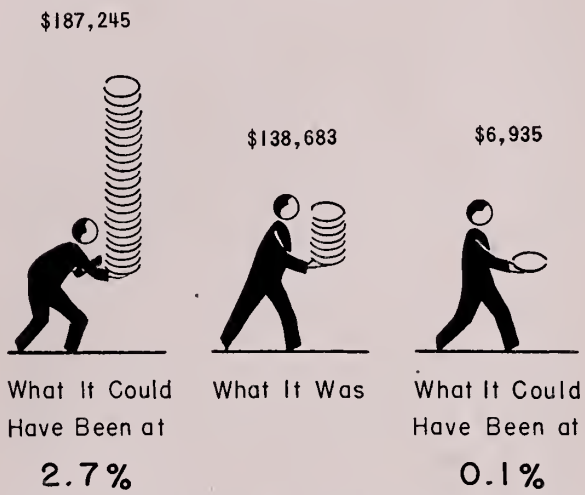

Fig. 1. State unemployment compensatian payrall taxes paid by Texas physicians in 1956 in contrast with what the payment would have been at maximum tox rates and ot minimum tox rates. (Prepared by Texas Emplayment Cammissian.)

RECOMMENDATIONS

Study of the following thoughts and suggestions will help both physicians and Employment Commission:

1. It is possible you are over-paying unemployment taxes.

2. It was never intended that unemployment compensation would make idleness more attractive than work.

3. It is your money that goes into the employment security program, not your employees'.

4. You have the right to protest any unfair claim for unemployment compensation insurance.

5. Your tax rate may be affected if you were a base period employer of any eligible claimant.

6. Keep a file of your firm's separation notices for ready reference.

7. Make sure your employees know the difference between voluntary quits, lay-offs, and discharges.

8. Train your supervisors in protest procedure so that they will know when to recommend filing. If you do file a protest, be sure it is filed within the time specified on the notice.

9. Investigate the appeals procedure and use it to the fullest extent.

10. Use the job placement services of your nearest Texas Employment Commission office.

♦ Mr. Acers, Texas Employment Commission, Austin.

Serious Reactions To Penicillin Increase

An increasing amount of serious reactions to penicillin have occurred each year, reported Dr. Henry Welch, chief of the Food and Drug Administration's Division of Antibiotics, to the fifth annual Symposium on Antibiotics.

The results of a nationwide FDA survey covering from 1953 to 1957, which Dr. Welch presented, showed that reports of penicillin reactions with a relatively high percentage of fatalities have been appearing in the medical literature since 1945. Dr. Welch said that there were a substantially higher number of reactions to penicillin than to other antibiotics.

Dr. Welch pointed out that an estimated 10 per cent of the population, 17,000,000 persons, are prone to become sensitive in some degree to various substances in foods, drugs, and cosmetics. It is not possible, he said, to determine, however, absolutely that an individual will or will not suffer a reaction. The number of reactions to penicillin is still small when it is considered that millions of persons receive the drug each year and that it has saved tens of thousands of lives. He said that increased reactions are to be expected in the wide use of a highly antigenic substance.

Nearly one-third of the cases reported in the FDA survey were classed as life-threatening, and two-thirds as not life-threatening. The trend of increase in serious reactions, especially from penicillin given by intramuscular injection, shows that there should be a clear-cut indication of need before the drug is administered, Dr. Welch suggested. The survey showed that the broad spectrum antibiotics, which include the three tetracyclines and chloramphenicol, cause relatively few adverse reactions. Tetracycline antibiotics, however, should be used cautiously, particularly for patients undergoing abdominal surgery, said Dr. Welch.

Copies of the complete report on serious reactions to antibiotics will be made available to the medical profession, said FDA officials.

CASE REPORTS

Coma and Psychosis Following Possible Insulin Hypersensitivity

With Remission of Narcotic Addiction After Severe Hypoglycemic Shock

NATHAN COTLAR, M.D.

Houston, Texas

IN 1934 SAKEL introduced insulin shock therapy. The frequency of these treatments in psychiatry, and with insulin shock complicating diabetes mellitus, has caused much to be written on this subject. In this particular case report the following points of interest

Dr. Cotlar, clinical instructor in medicine, Baylor University College of Medicine, presented this case report to the Texas Diabetes Association, April 22, 1956, in Galveston.

Prolonged insulin shock, insulin hypersensitivity, organic brain disease in prolonged hypoglycemia, manic psychosis complicating recovery, and an incidental cure of narcotic dependency resulting from therapeutic effect of coma are noted in a case of a diabetic housewife admitted to the hospital in shock.

will be observed: (1) prolonged insulin shock, (2) insulin hypersensitivity, (3) organic brain disease in prolonged hypoglycemia (a distinct neurological entity), (4) manic psychosis complicating recovery, and finally (5) an incidental narcotic dependency cure resulting from therapeutic effect of coma.

CASE REPORT

A housewife, a 35 year old known to have diabetes for four years, had a history of severe narcotic dependency of three years' duration.

Following two doses of regular insulin at 8 a. m. and 12 noon, totalling 70 units, she went into a stupor, and then into a coma, with signs of insulin shock, including sweating, salivation, tachycardia, stertorous breathing, twitchings, fixed pupils, and complete flaccidity of all her extremities. Glycosuria had been caused by ingestion of 16 or 18 bars of chocolate candy on the preceding night.

This manner of immature behavior and self-punishment characterized the patient's indifferent attitude towards her diabetes. After an occasional domestic quarrel, she would spend the night at a hotel or tourist court with her older teen-age daughter, awaiting the arrival of her husband a day later to escort her back home. During this time she would grossly violate her dietary restrictions, eating candy and other sweets at will and in large amounts.

It was under such circumstances that she became ill with glycosuria 4 plus and subsequent insulin shock. She was admitted to the hospital, in spite of her protests and objections, for by now she had become unaware of her surroundings and condition. Upon admission to the hospital she was in insulin shock with a blood sugar level of 7 mg. per 100 cc. and a negative urine sugar determination. She was given 25 Gm. of glucose intravenously in concentrated solution. Two minutes later, when she failed to respond, the infusion was repeated, and again there was absence of any response. Her deep reflexes disappeared, and she was completely atonic. Her pupils fixed, and her temperature and pulse rose to 105 F. (axillary) and 130 per minute, respectively. Although her temperature dropped to 102 F. the next day, she remained moribund, and it was feared that her coma was irreversible. With the slightest overdosage of insulin, she became hypoglycemic again, as occurred during the first night of her admission.

Considerable difficulty was encountered in her insulin therapy, for she had become hypersensitive, and it was necessary to limit her dosage to 5 or 10 units in spite of marked hyperglycemia. Her total daily dose averaged 25 to 30 units (regular insulin). In spite of blood sugar levels which frequently exceeded 300 mg. per 100 cc., her urine sugar content was diminished remarkably with relatively small insulin dosage (table 1).

The patient had some brain damage, as indicated by the finding in the spinal fluid of 336 blood cells per cubic centimeter, half of them white and half red, with slight xanthochromia, as well as the clinical picture, with Cheyne-Stokes breathing, twitchings, aphasia, dysarthria, positive Babinski sign, and finally mental disturbances, manifested by negativism, then irritability, belligerence, and violence. These signs disappeared, and she ultimately reverted from her coma and stupor into increased psychomotor activity and obviously severe mental disturbance. Finally she recovered fully from these temporary brain changes.

She had remained in a state of coma with her initial clinical picture essentially unchanged, in spite of constant hyperglycemia, for six days. She began grunting and groaning, moving about in bed, salivated profusely with excessive spitting, became irritable and also slightly responsive to stimulation during the second week, and then became slightly communicative and responded to some questioning for about 10 more days, exhibiting dysarthria and aphasia. Twenty-one days after admission she showed the first signs of good clearing of her sensorium and asked why she was in the hospital. A few days later she began showing signs of being mentally disturbed, with talking at random, screams, salivation and spitting, and uncontrollable outbursts; she exhibited a silly and childish or moronic mentality at times. She would not tolerate a gastric tube for feeding, and because she refused to eat, there was a continuing problem of managing her diabetes. Her maniacal outbursts were uncontrollable, in spite of chloral hydrate and paraldehyde. Large doses of Thorazine finally quieted her.

As noted before, the patient was known to be addicted to narcotics. The cause of her addiction was not believed to be due to prior narcotic therapy, but rather to a basically inadequate personality in an emotionally immature individual. To exemplify, she was reported always to have been somewhat childish in her behavior, complained loudly of her somatic problems, and had practically no responsibility for her own welfare or the rearing of her two young daughters. She had been dependent upon Demerol and other narcotics for several years. In addition to numerous hospital admissions, when she received enormous dosages, including several withdrawal programs, all of which were to no avail, she had frequent self-administered Demerol injections over long periods of time. She had been treated for addiction by numerous doctors in Houston, Galveston, Dallas, and the Joslin Clinic in Boston, but these treatments were of no avail.

The patient and members of her family now admit, with profound gratification, that since this prolonged coma, the patient has never had, or felt the need for, any type of narcotic, "not even sleeping tablets." This freedom from the drug habit has continued thirty-four months and probably will be permanent.

During my last consultation with this patient, January 2, 1957, I learned that she has done very well, is able to utilize sufficient amounts of glucose to keep out of acidosis, and is considered cured of her addiction. Her husband feels that improved personality and emotional standards also are evident since her illness. Her insulin maintenance is 10 units daily, the lowest since insulin therapy was begun in 1951.

TABLE 1.—*Patient's Hypersensitivity to Insulin.*

Date (1954)	Tests Before Insulin: Hour	Blood Sugar (mg./100 cc.)	Urine Sugar	Insulin (Regular) Units Given	Tests After Insulin: Hour	Urine Sugar
8-11	5 p. m.	236	4 +	40	9 p. m. (blood sugar 30)	neg.
8-12	8 a. m.	174	4 +	20	12 noon	trace
8-27	8 a. m.	131	4 +	5	10 a. m.	neg.
	4 p. m.		4 +	10	6 p. m.	1 +
8-30	10 a. m.	272	3 +	5		
				5 (2 p. m.)	4 p. m.	trace
9-3	9:40 a. m.	450	4 +	10		
				5 (11:30 a. m.)	2 p. m.	neg.
9-7	9:30 a. m.	304	3 +	5		
				5 (11:30 a. m.)	1:30 p. m.	neg.

DISCUSSION

Brodwall, Skulstad, and Sagberg[2] of Bergen, Norway, have discussed protracted insulin coma and noted that its final outcome may be complete recovery, partial recovery with various physical or mental defects, or even death. Of the numerous causes of hypoglycemia, the most common is insulin treatment, and such was the case in this instance.

The question of insulin sensitivity, or hypersensitivity, or allergic reactions to insulin (animal and human types) has been the subject of study by Lowell,[4] Zondek and Bromberg,[6] and others, and has proved to be a difficult and confusing problem. It should be pointed out that Lowell has studied a patient whom he found to be allergic to both animal and human insulin. Zondek and Bromberg's series with scratch tests led to uncertain conclusions, and were thus difficult to evaluate.

Ziegler[5] has reported such neurological signs and symptoms as were present in this case, following insulin coma therapy in his study of 22 young schizophrenic patients who had no previous history of neurologic disorder, nor had they had any previous insulin therapy.

In such instances of delayed awakening, or potentially irreversible coma, as was present in this case, Jameson and Ford[3] have reported exceptional response to Novaldin (Winthrop-Stearns), 2 cc. intravenously. This (Sike's) method was not used in this case.

The psychosis, while not uncommon in such cases, raised the question as to possible brain damage in this patient, for it has been shown by several writers that persistent hypoglycemia, or repeated attacks of insulin shock (therapy) cause certain brain changes which may and do result in microscopic brain cellular changes and, grossly, in necrosis, liquefaction, and sometimes cystic brain degeneration. Postmortem studies reported by Baker[1] revealed such changes and the observation of cysts as large as eggs and small oranges in fatal cases. He described severe damage to the cerebral tissues with gross petechiae and areas of encephalomalachia with cyst formation, chiefly in the white substances. Histologically, he observed nerve cell alterations, cerebral petechiae, diffuse and focal glial proliferation, and finally, large areas of demyelinization, encephalomalachia, and cyst formation. The glial proliferation is very striking and often occurs without any associated myelin tissue injury. For these reasons, many psychiatrists view with some concern the possibility of these changes from insulin shock therapy, and a few are said to have discontinued its use altogether.

A somewhat spectacular aspect of this case was the apparent cure of narcotic addiction resulting from the prolonged coma.

SUMMARY

A young married woman was admitted to the hospital in deep insulin shock which at first appeared to be irreversible. After one week she became slightly responsive, and after two more weeks developed a clear sensorium; then in a few days she became mentally disturbed, with a well defined psychosis. She also exhibited marked insulin hypersensitivity complicating her treatment further, and showed remarkable changes in her blood and urine studies with only 5 to 15 units of regular insulin. When complete recovery was pronounced, it was noted that a severe narcotic dependency had been overcome, which had resulted as an incidental occurrence with her near-fatal shock.

Thirty-four months later, she has continued to be fully recovered, totally free of narcotic habit, and exercising proper and diligent care of herself.

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Dr. Cotlar, 314 Medical Arts Building.

Blood "Sludging" May Cause Ear Disorders

"Sludging" of the blood, brought on by emotional difficulties, is involved in the development of several ear disorders, said Dr. Edmund Prince Fowler, a New York otolaryngologist.

Examination of the eyes' blood vessels has revealed clumps of red blood cells, or sludge, circulating in the blood during acute, chronic, and progressive illness, in old age, after severe burns or injuries, and after emotional upheavals, said Dr. Fowler. The sludging seems to be a reaction to strain —either physical as in an injury or illness, or emotional, said Dr. Fowler in the October issue of the *Archives of Otolaryngology*.

Dr. Fowler observed such sludge in various types of sudden and progressive deafness, in Meniere's disease, and in otosclerosis. He said that when blood cells aggregate in clumps, a shortage of oxygen develops in the area. The clumps clog the blood vessels and prevent the normal flow of blood. Since most of their surfaces are smothered, the cells' ability to take up and discharge oxygen is curtailed. If the oxygen is cut off too long, damage to surrounding cells may result, and ear disorders may result, said Dr. Fowler.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-22, 1958 (Executive Council, Jan. 19, 1958). Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

Current Meetings

NOVEMBER

American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Fourth District Society, Brownwood, Nov. 7, 1957. Dr. Scott H. Martin, San Angelo, Pres.; Dr. Fred Spencer, Jr., 308 W. Chandler, Brownwood, Secy.

Fifteenth District Society, Marshall, Nov. 10, 1957. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.

DECEMBER

American Medical Association, Clinical Meeting, Philadelphia, Dec. 3-6, 1957. Dr. David B. Allman, Atlantic City, Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, Los Angeles, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Private Clinics and Hospitals Association of Texas, Dallas, Dec. 14-15, 1958. Dr. R. D. Holt, Meridian, Pres.; Mr. Bill Schumacher, Box 383, Sherman, Executive Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas State Board of Medical Examiners, Fort Worth, Dec. 5-7, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy; Miss Luanna Knox, Assistant Secretary.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. Carl E. Arbesman, Buffalo, N. Y., Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of General Practice, Dallas, March 22-27, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 12-17, 1958. Dr. Leroy A. Schall, Boston, Pres.; Dr. W. L. Benedict, 15 Second St. S.W., Rochester, Minn., Secy.

American Academy of Pediatrics, New York, April 21-23, 1958. Dr. Stewart H. Clifford, Brookline, Mass., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.

American Association for Thoracic Surgery, Boston, May 16-18, 1958. Dr. Brian Blades, Washington, D. C., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Edgewater Park, Miss., April 23-25, 1958. Dr. George F. Cahill, New York, Pres.; Dr. W. J. Engel, 2 East 54th, New York 22, Secy.

American Association of Obstetricians and Gynecologists. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Merle Moore, Portland, Ore., Pres.; Dr. David Thomas, 1467 Harper St., Augusta, Ga., Secy.

American College of Chest Physicians, San Francisco, June 18-22, 1958. Dr. Burgess L. Gordon, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology, New Orleans, Oct. 20-28, 1958. Dr. C. Wilmer Wirts, Philadelphia, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Richard A. Kern, Philadelphia, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5-8, 1958. Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation. Dr. Donald L. Rose, Kansas City, Kan., Pres.; Dorothea C. Augustin, 30 N. Michigan Ave., Chicago, Executive Secretary.

American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.

American Gastro-Enterological Association, Washington, D. C., May 30-31, 1958. Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society, Asheville, N. C., May 19-21, 1958. Dr. Howard C. Taylor, Jr., New York City, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Heart Association. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Chicago, Aug. 18-21, 1958. Mr. Tol Terrell, San Angelo, Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago 10, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, May 21-23, 1958. No 1957 meeting. Dr. Lawrence R. Boies, Minneapolis, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 16-18, 1958. Dr. Israel S. Wechsler, New York, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, White Sulphur Springs, W. Va., May 28-30, 1958. Dr. Walter S. Atkinson, Watertown, N. Y., Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27, 1958. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Atlantic City, N. J., May 8-9, 1958. Dr. A. Ashley Weech, Cincinnati, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.

American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E. Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, San Francisco, May 12-16, 1958. Dr. Harry C. Solomon, Boston 15, Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Society of Anesthesiologists, Pittsburgh, Pa., Oct. 19-24, 1958. Dr. Ralph S. Sappenfield, Miami, Pres.; Dr. J. E. Remlinger, Jr., Wilmette, Ill., Secy.

American Society of Clinical Pathologists, Chicago, Nov. 1-8, 1958. Dr. Harry P. Smith, New York, Pres.; Dr. Clyde G. Culbertson, 1040 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, New York, April 16-18, 1958. Dr. John H. Mulholland, New York, Pres.; Dr. William Altemeier, Christian R. Holmes Hospital 19, Cincinnati, Secy.

American Urological Association, New Orleans, April 28-May 1, 1958. Dr. William J. Baker, Chicago, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, San Francisco, April 10-19, 1958. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Philadelphia, May 18-23, 1958. Dr. William M. Morgan, New York, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Southern Psychiatric Association. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southwest Allergy Forum, Shreveport, Feb. 23-25, 1958. Dr. H. Whitney Boggs, Shreveport, Pres.; Dr. J. D. Youman, 2021 Line Ave., Shreveport, Secy.

Southwest Regional Cancer Conference, Fort Worth, September, 1958. Dr. O. J. Wollenman, Jr., Fort Worth, Chm.; Mrs. Ira Frances Ball, 264 W. 11th, Fort Worth, Secy.

Southwestern Medical Association. Dr. Celso C. Stapp, El Paso, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Southwestern Society of Nuclear Medicine. Dr. Jack G. S. Maxfield, Dallas, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Assembly, Shreveport, Sept. 18, 1958. Dr. James Gatline, Camden, Ark., Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

United States-Mexico Border Public Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

State

Texas Academy of General Practice, San Antonio, Sept. 22-24, 1958. Dr. G. W. Cleveland, Austin, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Air-Medics Association, Houston, April 20-21, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, Houston, April 20, 1958. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Houston, April 20, 1958. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association, Houston, April 20, 1958. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Geriatrics Society. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association, Houston, April 20, 1958. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Dallas, May 5-8, 1958. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Industrial Medical Association, Houston. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neurophychiatric Association. Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, Houston, April 22, 1958. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Houston, April 21, 1958. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.

Texas Pediatric Society, Fort Worth, October, 1958. Dr. T. J. McIlhenney, Austin, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Physical Medicine and Rehabilitation Society, Houston, April, 1958. Dr. Odon F. von Werssowetz, Gonzales, Pres.; Dr. Edward M. Krusen, Baylor Hospital, Dallas, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Texas Society of Anesthesiologists, Houston, April 20, 1958. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Houston, April 20, 1958. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.

Texas Society of Plastic Surgeons, Houston, April 19, 1958. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, Houston, October, 1959. Dr. J. Peyton Barnes, Houston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Houston, April 20, 1958. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association, Houston, March 27-29, 1958. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, P. O. Box 6158, Austin 21, Executive Director.

Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.

Second District Society, Lamesa, Spring, 1958. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Amarillo, April 5, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, 1958. Dr. Foy Moody, Corpus Christi, Pres.; Dr. Thelma Frank, 129 Rainbow Lane, Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Eighth District Society, Galveston, October, 1958. Dr. John H. Childers, Galveston, Pres.; Dr. M. Warren Hardwick, Angleton, Secy.

Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.

Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.

Eleventh District Society. Dr. George M. Hilliard, Jacksonville, Pres.; Dr. Phillip W. Taylor, 833 S. Beckham, Tyler, Secy.

Twelfth District Society, Corsicana, January 14, 1958. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Clinics

Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Executive Offices, 433 Medical Arts Bldg., Dallas 1.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.; S. E. Cockrell, 202 W. French Place, San Antonio, Exec. Secy.

New Orleans Graduate Medical Assembly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 21-23, 1958. Dr. Charles D. Reece, Pres.; Dr. C. Forrest Jorns, Secy., Exec. Office, 412 Jesse Jones Library Bldg., Houston 25.

State Tumor Conference, Wichita Falls, April 12, 1958. Dr. Edwin C. Bebb, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences, April, 1958. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Ratliff, Chief Clerk, 303 East Seventh, Austin.

Appointments to Board of Health

Recent appointments to the Texas State Board of Health by Governor Price Daniel include Dr. William Hibbitts, Texarkana, and Cyrus Hill Lambert, pharmacist, El Paso. Elmer C. Baum, D. O., Austin, was reappointed. Dr. Hibbitts and Mr. Lambert, whose terms expire in 1963, replaced Dr. George Turner, El Paso, and J. T. Stryker, pharmacist, Woodville.

Paul C. Witt, Ph.D., chemist at Abilene Christian College, Abilene, and Brother Raphael Wilson, Austin, were appointed by Governor Daniel to the Board of Examiners in the Basic Sciences, their terms also to expire in 1963.

Who Owns X-Rays?

Frequently physicians are confronted with the question of the ownership of roentgenograms that they have taken of their patients. Such a question normally arises when a patient, or possibly an attorney, demands certain x-rays the physician has taken and which are in the possession of the physician. The basic point then is, who owns the roentgenogram, the physician or the patient?

This question never has been before the courts of our state, but it has arisen in other states and as a result we must look to these decisions to see what result would likely be reached by our courts should this question arise.

Probably the leading case upon this subject is McGarry v. J. A. Mercier Co.* which was decided by the supreme court of Michigan.

The facts in this case show that the J. A. Mercier Co. had employed Dr. McGarry to treat one of its employees who had sustained an injury involving the sacroiliac joint in the lower part of the back. The defendant company refused to pay for the services of Dr. McGarry, and as a result he brought suit. The reason the company had declined to pay the bill was that Dr. McGarry refused to deliver to the J. A. Mercier Co. certain roentgenograms taken during the course of the treatment.

The trial court held in favor of Dr. McGarry, and the J. A. Mercier Co. appealed to the supreme court of Michigan. The supreme court, in affirming the decision of the trial court, held that the physician was justified in refusing to surrender possession of the roentgenograms. The court felt that in the absence of an agreement to the contrary, roentgenograms are the property of the physician who has made them incident to treating a patient, regardless of the fact that their cost is charged to the patient. Their retention by the physician constitutes an important part of his clinical record in the particular case, and such roentgenograms may embody and preserve much of value incident to a physician's experience.

The court also thought that such x-rays were as much a part of the history of the case as any other case record made by a physician. Also, roentgenograms differ little, if at all, from microscopic slides of tissue made in the course of diagnosing or treating a patient, and it hardly could be claimed that such slides were the property of the patient.

The court also mentioned that in the event of a malpractice suit against the physician, the roentgenograms that he has caused to be taken and preserved incident to treating the patient might often constitute the unimpeachable evidence which would fully justify the treatment of which the patient complained.

The court, in reaching its decision, relied on the cases of Corliss v. E. W. Walker Co.† and Pollard v. Photographic Company,‡ in which it was held that the negative of an ordinary photograph, in the absence of an agreement otherwise, belongs to the operating photographer although his use thereof may be restricted.

This reasoning and authority would seem to apply equally to all other items which might be a part of a physician's record of a patient, such as tissue reports and results of certain laboratory tests. Therefore, the effect of such a decision would be that the physician can retain possession of such x-rays or the like and refuse to give them to the patient if he desires. Of course, if they should prove necessary in the event of litigation, the patient could force the physician to produce them by the use of a subpoena.

—PHILIP R. OVERTON, LL.B., Austin.

*262 N.W. 296.

†64 F. 280.

‡40 Ch. Div. 345.

Tax Ruling Reversed On Medical Groups' Status

The Internal Revenue Service now has reversed its own 1956 ruling which deals with the tax status of group medical practice. The new policy states that if a medical group sets up a pension plan, this fact will not be determinative in categorizing the organization as a partnership or anything else. Rather, the usual tests will be applied to decide whether the group has more of the criteria of a corporation than a partnership.

Formerly, it was ruled that doctors who form an association with the idea of obtaining corporate status benefits, including the eligibility of member physicians to subscribe to tax-deferred pension plans, constitute a partnership and thus would be disqualified for such plans. The idea behind this is that such plans are for employees, not employers or partners. This ruling went counter to the federal court decision earlier which held that the association operating Western Montana Clinic fulfilled criteria of a corporation for tax and pension plan purposes.

For nearly 2 years, tax headquarters in Washington was in the position of having to explain over and over again why the doctors in the Montana group could have the tax and pension advantages of a corporation—because the court said so—while other medical groups administered in an identical manner could not have these advantages—because the Internal Revenue Service said so—and for this reason IRS is "modifying its position" on the question.

Medicolegal Meeting To Be Held in Dallas

An Institute on Personal Injury Litigation will be presented by doctors and attorneys across the nation at the Southwestern Legal Center in Dallas, December 11-13, 1957. The 3 day meeting will be sponsored by the Southwestern Legal Foundation in cooperation with the Southern Methodist University School of Law.

Discussions of medical problems of the back associated with injury, including many of those involved in workmen's compensation and personal injury litigation, will be featured at the meeting.

Professors of the University of Texas Southwestern Medical School who will participate in the medicolegal gather-

ing are Dr. C. F. Gregory, Dr. Kemp Clark, Dr. Frederick Hinman, Dr. Grant Boland, and Dr. Robert Stubblefield. Clinical professors taking part in the program are Dr. J. E. Miller, Dr. Max F. Goodfried, Dr. Felix L. Butler, Dr. Albert O. Loiselle, Dr. David J. Henry, Dr. Tom M. Nash, Dr. Charles J. Wilson, and Dr. Glenn Cherry. Other doctors appearing at the institute include Dr. Louis J. Levy, Fort Worth, and Dr. Livius L. Lankford, Dallas. Dr. Ozro T. Woods of Dallas will preside at the various sessions.

Registration fee for the institute is $35 for all sessions, or $15 for single day attendance. Inquiries should be directed to Gordon R. Carpenter, Southwestern Legal Foundation, Hillcrest and Daniels, Dallas 5.

MEDICAL MEETINGS

CANCER SOCIETY TO MEET

The Texas Division, American Cancer Society, will meet December 5-6 in Austin. Guest speakers will include Dr. David Wood, San Francisco, past president of the American Cancer Society; Dr. Kenneth Clark, New York; Dr. Porter Brown, Fort Worth, president of the Texas Division; and Mefford R. Runyon, New York, executive vice-president of ACS. The speaker at the annual dinner will be Paul Reinhold, Pittsburgh, Pa., who is on the board of directors of the Allegheny County Unit and president of the Atlas Equipment Corporation.

A special program feature will be a panel discussion, "Where Are We in Cytology?"

Texas Surgical Society Elects New Officers

Members of the Texas Surgical Society, meeting October 7 and 8 in Waco, elected the following officers to serve for the coming year: Dr. J. Peyton Barnes, Houston, president; Dr. Charles D. Bussey, Dallas, first vice-president; Dr. William E. Crump, Wichita Falls, second vice-president; Dr. Robert Sewell, Fort Worth, treasurer; Dr. G. V. Brindley, Jr., Temple, secretary; and Dr. Elbert Caldwell, Houston, member of the council.

There were 127 members and 60 guests present; Dr. Caleb S. Stone, Jr., Seattle, Wash., and Dr. Melvin Casberg, Austin, were guest speakers. The next meeting will be held in Houston in October, 1959.

Congress on Diseases of the Chest

The fifth International Congress on Diseases of the Chest, sponsored by the American College of Chest Physicians, will be held in Tokyo, September 7-11, 1958. The congress has been endorsed by the Japan Medical Association, and will be presented under the patronage of the government of Japan and the Japan Science Council.

Eminent scientists from countries throughout the world will participate in the discussions, which will be simultaneously interpreted into three official languages for the Congress—Japanese, French, and English. There will be scientific and commercial exhibits and visits to various medical institutions and hospitals in Japan. Scientific papers, panel discussions, fireside conference, and motion pictures will be presented at the meeting. A special program is being planned for the ladies.

Additional information may be obtained from Murray Kornfeld, Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11.

EDUCATION

Site Considered For Medical School

Another step has been made for a new state supported medical school. Because of the growing need of additional facilities for the purpose of training Texas doctors, a survey team made up of outstanding physicians from all over the country and physician members of the Texas Commission on Higher Education recently considered the possibilities of San Antonio as the location for the fourth medical school in the state.

Dr. Joseph Hinsey, director, New York Hospital, Cornell Medical College Center, New York Center, spokesman of the Medical Survey Team, comments, "We have been impressed with the facilities seen in the various hospitals, both private and public, and in the military installations in this area. The Institute for Biomedical Research is a vigorous and rapidly developing institution. The Bexar County Medical Library would form the nucleus of a Medical Library that could be of great value to such a center."

The survey team intends only to pass judgment on the potentialities that exist in San Antonio for a Medical Center, Dr. Hinsey reports, and not to decide whether or when such a Center should be developed. The committee believes that this decision is the responsibility of the citizenry and their legislature, the Commission on Higher Education, and the University of Texas.

"In our judgment, it will be most important to provide for an institution in which work of the highest caliber can be done. In our judgment there is no place for anything short of this," states Dr. Hinsey.

The House of Delegates of the Texas Medical Association has adopted a resolution for the establishment of a third medical branch of the University of Texas and indicated that San Antonio would be the favored location for the school.

Heading the group was Dr. Milford O. Rouse, Past President of Texas Medical Association and current chairman of the Texas delegation to the American Medical Association's House of Delegates. Other members of the survey team were Dr. James M. Faulkner, Director, Homberg Infirmary, Massachusetts Institute of Technology, Cambridge; Dr. Murray Kinsman, Dean, University of Louisville School of Medicine, Louisville; and Dr. W. Clarke Wescoe, Dean, University of Kansas School of Medicine, Kansas City, Kan. Dr. Frank Connally, Waco; Dr. Harry Shytles, Sherman; and Ralph Green, Ph.D., Austin, comprise the membership of the Texas Commission on Higher Education.

Industrial Health Courses Offered

The University of Cincinnati's Institute of Industrial Health is offering graduate fellowships for professional personnel other than physicians, in the field of environmental hygiene. This training is provided for graduates of approved schools of engineering or science. A 3 year course of instruction leading to a Doctor of Science in Industrial Health degree, devotes 2 years to intensive academic study and a third to the preparation of a thesis. A 1 year course is offered to applicants who also may be candidates for the master of science degree.

Requests for additional information should be addressed to Secretary, Institute of Industrial Health, College of Medicine, Eden and Bethesda Avenues, Cincinnati 19.

Baylor University College of Medicine

Equipment developed by the Magnolia Petroleum Company for geological prospecting has been donated to the Department of Physiology of Baylor University College of Medicine, Houston, for use in medical research. The RC Memory Commutator, as it was named by Magnolia, is quite similar to an instrument, developed by Dr. G. D. Dawson of the British Medical Research Council, which has proved valuable in physiological investigations of the human nervous system.

Dr. John Scott, Houston, Baylor University College of Medicine, worked with Dr. Dawson in London in 1955 and 1956, and will use the instrument to record arrival of sensory impulses in the brain which, without special equipment, could be done formerly only on animals under anesthesia.

These two instruments, developed independently of each other in unrelated fields, are the only ones of their kind in existence.

Dr. Bunichi Fujimori, Hokkaido University, Japan, visited in October under the auspices of the China Medical Board of New York. He has been in this country the past year as a research fellow in anatomy at the University of California.

Dr. Helen B. Taussig, associate professor of pediatrics at Johns Hopkins University and physician-in-charge of the cardiac clinic at the Harriet Lane Home in Baltimore, spoke to the senior students in October. Dr. Taussig is author of the book, "Congenital Malformations of the Heart."

Dr. Robert T. Clark, Jr., chairman of the Department of Physiology and Biophysics at the School of Aviation Medicine, Randolph Air Force Base, spoke to the sophomore students in October on the Air Force's research into the effects of weightlessness experienced at high altitudes.

James D. Jett and Scott Grundy, sophomore students, have been notified by the Schering Corporation that their paper, "Incidence of Various Types of Cardiovascular Disease by Age Group in the Male and in the Female," placed second in competition with medical students throughout the United States and Canada. They received a $500 award.

Dr. Harold Daily has been appointed an instructor in the Department of Obstetrics and Gynecology. Dr. Michael E. De Bakey, professor and chairman of the Department of Surgery, has been elected the new president of the International Cardiovascular Society.

Postgraduate Courses

The University of Oklahoma Medical Center, Oklahoma City, 1957-1958.—The following courses have been announced:

November 13, Biliary Tract Disease.

December 11, Problems in Pulmonary Diseases.

January 8, Growth Failure.

February 6-8, Electrolytes and Nutritional Balance.

February 12, Urology Symposium.

March 3-7, Basic Electrocardiography.

March 6-7, Ophthalmology-Otolaryngology Symposium to include Dr. Joseph H. Haas of Chicago and Dr. Herman Semonov of Beverly Hills, Calif.

March 8, Obstetrical-Gynecological Symposium.

March 12, Pathogenesis and Treatment of Anemia.

March 14-15, Pediatric Surgery, Radiology, Pathology Symposium to include Dr. Robert E. Gross, Boston; Dr. William L. Riker, Chicago; Dr. Orvar Swenson, Boston; and Dr. John W. Hope, Philadelphia.

April 4-5, Trauma.

April 9, Anesthesia for the Part-Time Anesthetist.

May 14, Pediatric Allergy.

May 23 or June 6, Oklahoma Association of House Staff Physicians with two guest lecturers and papers by house staffs of eight hospitals.

June 11, Surgical Diagnosis and Problem Clinic.

For additional information write the Office of Postgraduate Education, University of Oklahoma Medical Center, 801 N. E. 13th Street, Oklahoma City.

Pathology Training Program Organized

A 5 year period for training physicians for research and teaching careers in pathology is available at the Department of Pathology of New York University–Bellevue Medical Center, through a recent grant of $450,000 by the National Institutes of Health of the United States Public Health Service.

Eight research fellowships are available for trainees at the level of assistant resident, ranging from $3,600 to $4,500 yearly. Also two senior fellowships are available for physicians with a more advanced level of training in the basic sciences or anatomical pathology, of $7,500 annually.

Further information may be obtained by writing: Office of the Dean, New York University College of Medicine, 550 First Avenue, New York 16.

Air Pollution Course Scheduled

A technical orientation field course on community air pollution control will be sponsored by the Austin-Travis County Health Department, Division of Occupational Health of the Texas State Department of Health, and the Air Pollution Training Unit of the Public Health Service, December 16-17 in Austin.

The course is designed to be of interest to public health workers, representatives from local government, industry, control agencies, professional groups, trade associations, and educational institutions. Officials of the Department of Health believe that the course will be of particular interest to representatives of industry management concerned with air pollution problems. Technical aspects of the program will include the evaluation of sources, atmospheric and source testing, analysis of air samples, meteorological aspects, the effects of air pollution, and the control of pollutant emissions.

Advance registration material may be obtained by writing Dr. W. L. Wilson, Division of Occupational Health, Texas State Department of Health, Austin. There is no registration fee for this course.

Mediclinics Announces Postgraduate Courses

The third annual Mediclinics postgraduate refresher course will be held March 2-12 at the Governor's Club Hotel in Fort Lauderdale, Fla. The American Academy of General Practice has certified this course for 32 hours of formal postgraduate study for academy members.

The course consists of 32 hours of lectures and panels and 7 luncheon meetings. Attendance will be limited to 300 in order to have an informal and intimate atmosphere in the lecture room.

A preliminary program may be obtained by writing Mediclinics of Minnesota, 601 Medical Arts Building, Minneapolis 2. The tuition fee for the course is $50 payable in advance. Checks should be sent to the above address.

1957-1958 Proctology Awards

The person with the best unpublished contribution on proctology or allied subjects for 1957-1958 will be awarded $100 and a certificate of merit by the International Academy of Proctology. The award of the first prize and presentation of the certificates will be made at the annual convention dinner dance of the International Academy of Proctology on April 11, 1958, in Mexico City.

All entries are limited to 5,000 words, must be typewritten in English, and submitted in five copies. Entries must be received no later than February 1, 1958. The International Academy of Proctology reserves the exclusive right to publish all contributions in its official publication, *The American Journal of Proctology.* Entries should be addressed to: Dr. Alfred J. Cantor, International Secretary, International Academy of Proctology, 147-41 Sanford Avenue, Flushing, N. Y.

Health Authorities Plan 1958-1959 Programs

A budget of $3,000,000 was adopted to carry on the program of the Pan American Sanitary Organization in 1958 at the organization's tenth meeting of the Directing Council and the eleventh meeting of the World Health Organization Regional Committee for the Americas recently concluded in Washington. Ministers and directors of public health and other health authorities represented the 21 American republics and territories in the Western Hemisphere.

At the conference, officers were elected and a program for 1958-1959 was adopted. The program will include 160 public health projects to be conducted by health administrations throughout the continent in collaboration with the Pan American Sanitary Bureau, regional office of WHO in the Western Hemisphere. Of major importance in the organization's plans for the coming year is the program of malaria eradication throughout the Americas. The plans also include continuing the fellowships which are extended to public health workers for intensive studies in their various fields of activity. The director was requested to prepare a manual containing the minimum recommended sanitation standards for application in hotels, restaurants, transportation facilities, and tourist centers in the Americas. Another proposal of the program includes a comprehensive survey of the food and drug situation in the various countries of the Hemisphere, with a view to the eventual establishment in the various countries of a clearing-house for scientific and technical information in this field.

Board of Medical Examiners Reports Actions Since 1953

In 1953, a new medical practice act was passed, giving the Texas State Board of Medical Examiners the power to cancel and suspend licenses to practice medicine and narcotic permits. Under the provisions of the new act, the board also may reprimand physicians or take other suitable action.

Since 1953, the board has cancelled the licenses of 33 physicians for offenses ranging from allowing unlicensed persons to use their licenses to unprofessional conduct. Eight licenses have been suspended, and 12 narcotic permits have been suspended. The board has reprimanded 15 doctors, has dismissed 7 cases, and taken no action in 4 cases.

Of the doctors whose licenses originally were revoked, the board has reinstated 3 and the court has reinstated 2. The narcotic permits of 8 doctors have been restored.

So far, 1957 has been the board's most active year as far as duties under the new medical practice act are concerned. Twelve licenses have been cancelled and 4 have been suspended. Five narcotic permits have been suspended; cases were dismissed in 5 instances, and in 3 cases, no action was taken. So far this year, the court has reinstated 1 doctor whose license was revoked, and the board has restored 2 narcotic permits.

Recently, the hearings of the board have been opened to the press so that the public may know the actions taken by the board and the reasons for the actions.

Health Insurance Benefit Payments Increase

The Health Insurance Institute recently announced that benefit payments to Americans covered by voluntary health insurance through insurance company policies were 15 per cent higher during the first 9 months of 1957 than for the same period the year before. Reports from the nation's insurance companies showed that from January 1 through September 30, 1957, an estimated $1,800,000,000 had been paid to help cover hospital and doctor bills and to replace income lost because of accident or sickness, said the institute.

Benefits paid under group health insurance policies covering hospital, surgical, and medical care and loss of income totaled $1,300,000,000 by the end of the third quarter, an increase of 20 per cent over the same period for 1956, reported the institute. The rise in benefits under individual and family type policies was more than $469,000,000, an increase of 4 per cent over 1956.

Persons covered under hospital expense policies, which help pay for the costs of hospital care, received a total of $748,000,000, with $578,000,000 received through group policies, and $170,000,000 under individual insurance policies. The institute stated that the increase in such payments to the American people reflects the continued efforts by the public to pay its hospital and doctor bills through voluntary health insurance.

Rate of TB Victims Still High

An estimated 22,000 people in Texas have active tuberculosis and 250,000 in the United States, reports the Texas Tuberculosis Association. Last year, 783 Texans died of tuberculosis and a vast number of near-invalids were af-

Help Fight TB

Buy Christmas Seals

flicted with the disease. Two million Americans have inactive tuberculosis, 550,000 of them are in need of medical supervision.

The teaching of good health habits to people of all ages helps raise the general level of health and increases resistance to the disease, said officials of the Association. The secrets of the germ, how humans react to it, are being explored by scientists in efforts to find better ways to prevent and cure tuberculosis.

National Health Agencies—Their Place In the Medical Field

A child begins to stumble, his activity is slowed, he seems clumsy and weak. His parents, afraid that he is experiencing a temporary disturbance, take him to the doctor. The diagnosis—muscular dystrophy. There is no cure; the disease will grow progressively worse; the child will die at an early age. Who helps the parents face this?

A young father of four discovers through a mass chest x-ray program that he is a victim of tuberculosis. What happens to his family if he must be hospitalized?

These are just two of the multiple catastrophic situations in which national health agencies lend a hand. Along with the doctor, the social worker, the clergy, and community agencies, they strive to give moral and financial support where it is most needed. In addition to direct aid to victims of accidents and disease, national health agencies spend millions of dollars each year on research, lay and professional education, expansion of treatment facilities, and administration of their various programs.

The National Better Business Bureau, Inc., reports that during their last fiscal year, the national health agencies raised well over $160,000,000 and that an additional $90,000,000 of tax money was allocated through the National Institutes of Health for research and other purposes in various health fields. Of course a large segment of health agencies' funds comes from the pocket of the man on the street. Another important source of funds is industry. Because manpower losses from chronic and disabling disease are expensive for management, big industries are interested in supporting agencies which work to alleviate such losses. The total cost of health services in the United States today is about $13,000,000,000; a substantial amount of this is paid by national health agencies.

In its report, "Corporate Contributions to National Health Agencies," the National Better Business Bureau, Inc., shows that 12 national health organizations raised more than $1,000,000 during their last fiscal year. The *Journal* has requested more specific data from these agencies, with particular reference to their activities in Texas. Following is a brief summary of the information each of the agencies supplied:

American Cancer Society.—The Texas Division of this organization cooperates with and supports efforts of the Texas Medical Association in furthering lay and professional education; it also provides a certain amount of service for cancer victims. Professional teams, the medical schools, and various professional conferences and symposiums are supported in Texas by the American Cancer Society; also, professional films and monographs are prepared. Tumor registry training is a part of the program. Of funds raised through the Texas Division, 60 per cent is retained in the state. Of the 40 per cent turned over to the national agency ($27,150,734 was raised nationally in 1956-1957), 25 per cent is spent for research, 12 per cent goes for national program development, and 3 per cent is earmarked for professional fellowships. In Texas last year, $227,554 was spent for lay education and $151,811 was spent for professional education.

American Heart Association.—This group studies and disseminates information pertaining to the normal heart circulation, and works to develop community programs for the benefit of those who suffer from cardiovascular diseases. Local groups are established to help carry out these purposes. Last year, the Association raised $17,775,910, exceeding its goal by more than $1,500,000. By far the largest allocation of funds was for research in the form of several types of grants-in-aid and fellowships. A variety of educational materials are available from the association, both for lay and professional use. These include films, slides, latex models of the heart, and audiovisual kits. Community services of the American Heart Association, carried out through the local chapters, include occupational therapy workshops, helping young people with cardiac conditions to choose occupations which they are capable of pursuing, improving nursing care for cardiac patients, and providing needed equipment. Community services carried out through the local chapters of the Texas Heart Association include school health and rheumatic fever prevention programs, job consultation services through work classification units, community and teaching clinics, improving nursing care for cardiac patients, and work simplification courses for housewives with heart disease. The national organization receives 25 per cent of all funds raised and 75 per cent is retained in Texas (15 per cent is for statewide services and 60 per cent is for district and local chapter use). The largest expenditure at the national level is for research, while lay and professional education accounts for the second largest expenditure. Although final figures for the 1957 fiscal year are incomplete, indications are that about $20,091,000 was raised.

Arthritis and Rheumatism Foundation.—There are some 200,000 child victims of arthritis and other rheumatic diseases; these diseases are much more prevalent than the average person realizes, and last year the Arthritis and Rheumatism Foundation raised $2,449,396 toward alleviating the cost of treatment, research, education, and clinical projects. Through the efforts of this organization, more and more medical students are becoming interested in arthritis and rheumatism; new specialists are being trained; teams are teaching patients and instructing leaders in industry as to the tolls of these diseases. Rehabilitation is an important part of the program, as are direct treatment and other patient services. Texas has two chapters, in North Texas and on the Gulf Coast. Of the funds they raise, they may keep 64 per cent for local use.

Muscular Dystrophy Associations of America.—Research and patient aid are the two most important aspects of this group's program. A newcomer to the national health agency scene, it was organized in 1950 and has 317 affiliate chapters; eight of these are in Texas. Patients, their parents, and families form the central part of the chapters, but active members in the ranks of every business, profession, and trade are on the increase. Film strips, slides, exhibits, radio, and television are a few of the media used to reach the public. Education of patients and their parents is an important part of the group's work, and grants in aid for research are issued to members of the medical profession. Two Houston physicians, associated with Baylor University College of Medicine and Methodist College, are presently carrying on research through funds made available by MDAA. Allocation of funds is not on a geographical basis but is done with the thought that funds shall be given for research wherever proper personnel and equipment is available. Likewise, patients with muscular dystrophy, wherever they are, are eligible for aid from the Muscular Dystrophy Associations of America. Unlike services of some organizations, MDAA does not limit patient aid to areas where local chapters exist. A total of $3,488,635 was raised nationally last year, and Texas contributed $98,102.

Late in October, construction was begun on a $3,700,000 Institute for Muscle Disease in New York. This is to be an MDAA sponsored center for research.

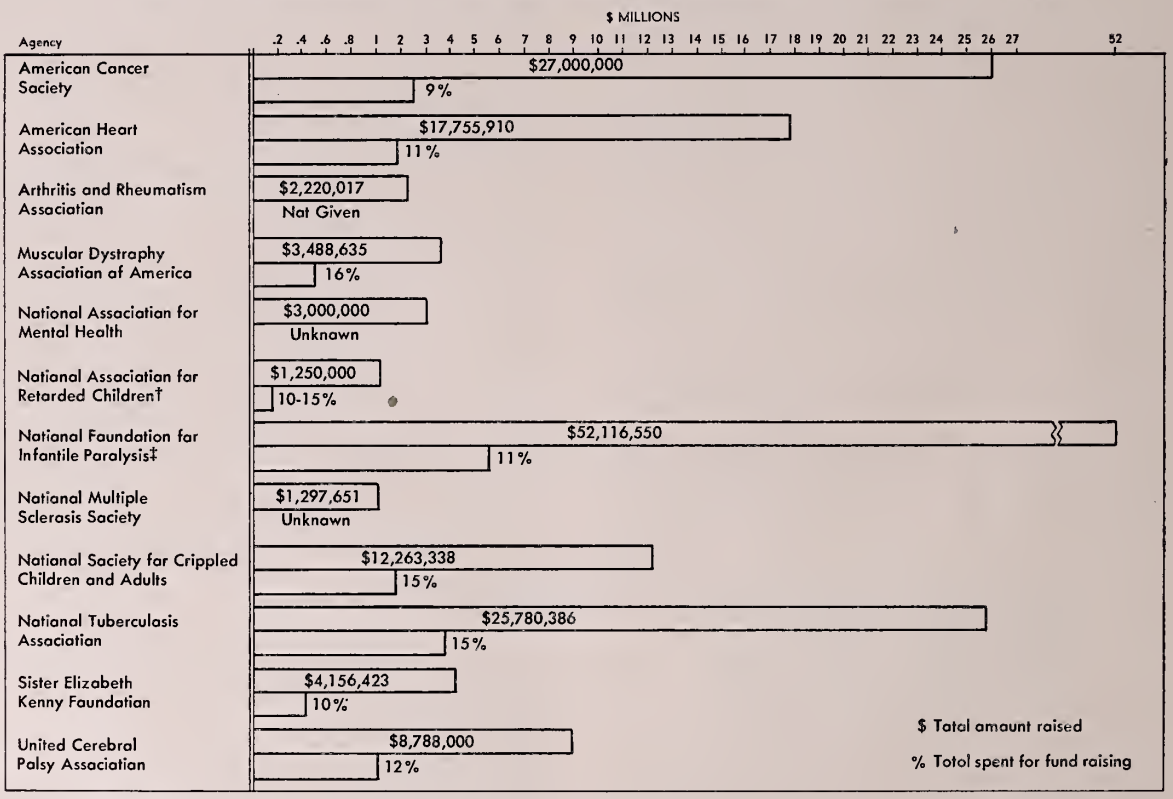
National Association for Mental Health, Inc.—More than half of the hospital beds in the nation are occupied by mental patients and it is estimated that mental illness afflicts

1 out of every 10 Americans. NAMH is the only voluntary national citizens organization devoted exclusively to the fight against mental illness and the advancement of mental health. The joint fund raising efforts of the local and state mental health associations and the national office realized slightly more than $3,000,000 in 1956. There are 40 member state associations including the Texas Society for Mental Health which sponsored the new Texas Mental Health Code passed by the Legislature in the last session. NAMH and its member associations support and sponsor research, promote training of expert personnel, work for improved treatment facilities, provide information and referral services and carry on a program of education through consultation and planning of local community programs, and distribution of pamphlets suitable for individual and group use. Since June, 1957, nearly half a million copies of the NAMH booklet, "How to Deal With Your Tensions," have been distributed free upon request as part of a 2 year National Advertising Council program emphasizing mental health to the general public.

National Association for Retarded Children.—(The *Journal* received no reply to queries about this group. The following information is from material supplied by the National Better Business Bureau, Inc., and from material already in the *Journal's* files.) As a source of information for parents of retarded children and for communities and individuals who want to provide facilities for care of these children, NARC is a central source of information. It helps create public awareness, encourages and cooperates with professional organizations, stimulates and fosters scientific research, works for beneficial legislation, strengthens units and provides consultation on community services, and provides general national leadership for a needed program for the 30 of every 1,000 babies that are mentally retarded to some degree.

National Foundation for Infantile Paralysis.—In the 1956 campaign, NFIP raised $52,116,550; half of the net funds were allocated to the national organization, but each chapter kept half of its own contributions. Funds retained by county chapters are used almost entirely for the patient aid program. Rehabilitation has been an important aspect. After the epidemic of 1955, more than two-thirds of all patients using respiratory aids were 20 years of age or older, many family breadwinners and parents of young children. Many of these have been helped to return to productive work or to begin job training. National headquarters allocates funds for research, professional and public education, prevention, and epidemic emergency funds. Since Texas has had such a high incidence of poliomyelitis, the state has been granted $555,900 in 1955 and $856,890 in 1956 in emergency funds.

TABLE 1.—Total Amounts Raised by 12 National Health Agencies and Percentage Spent for Fund Raising in Last Fiscal Year*



*Because the budgets of various agencies are set up differently, this chart cannot be interpreted as a precise comparison of the figures given. All figures are from the National Better Business Bureau, Inc., bulletin, "Corporate Contributions to National Health Agencies," copyright June, 1957, and amounts are for the fiscal year reported to the Bureau at the time of publication. In some instances, more recent figures are to be found in the paragraphs about the groups concerned.

†The National Association for Retarded Children estimates that 10 to 15 per cent of its total income is spent for fund raising.

‡These figures for the 1956 campaign were supplied directly from the National Foundation for Infantile Paralysis.

Currently, a March of Dimes research project is being conducted at Baylor University College of Medicine. The National Foundation counts the discovery of the Salk vaccine as its greatest contribution; also it conducts the largest professional education program of any voluntary health agency. In 1956, 60.3 per cent of all money went for patient care, and 25.8 per cent for research, prevention, education, and medical care.

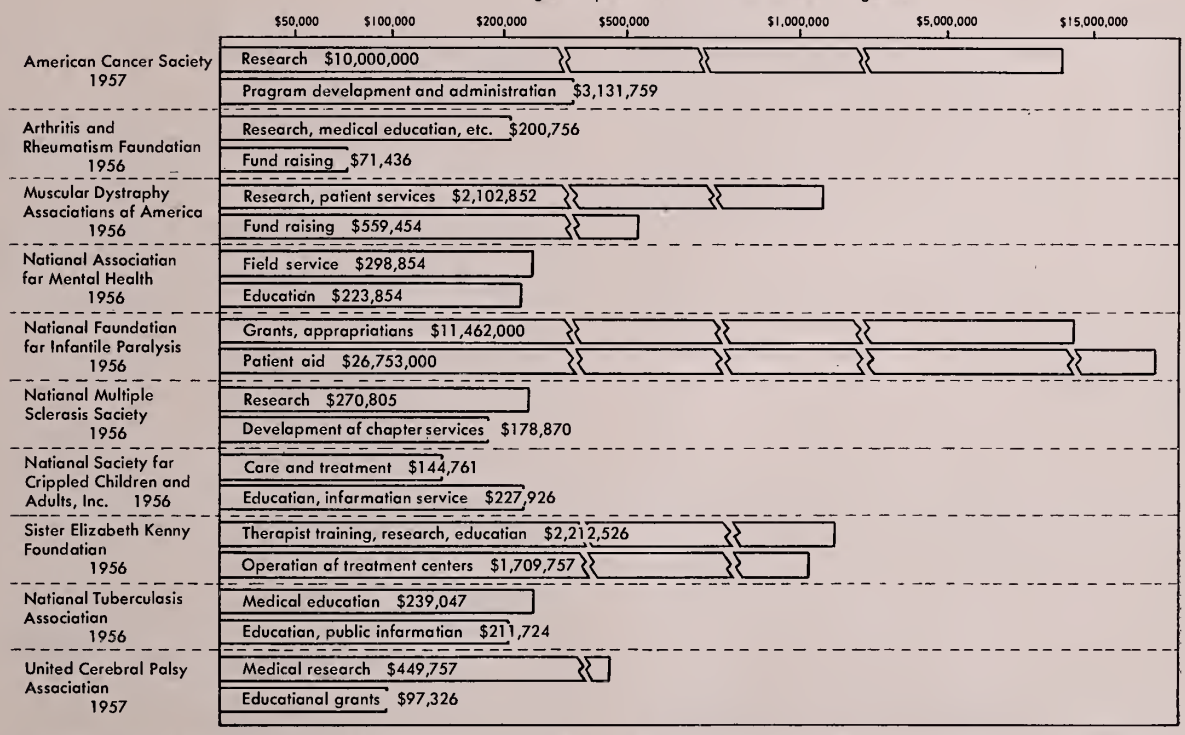
National Multiple Sclerosis Society.—This is a rapidly growing organization; its membership has increased from 74,000 in 1955 to more than 100,000 in 1956. The largest portion of the 40 per cent of the MS Hope Chest contributions which are sent to national headquarters is spent on research grants (two of these are held by Baylor University College of Medicine, Houston). Fellowships for study also are an important part of the program to combat multiple sclerosis. Lay and professional information services accounted for $94,681, and almost twice that amount was spent for chapter services to patients. Total income in 1956 was $2,007,607. Multiple Sclerosis Hope Chest funds are financing 36 scientific research projects, establishing multiple sclerosis clinics for treatment and research, furnishing research scientists English abstracts of current world literature on MS research through contract with *Excerpta Medica*, provides scholarships and fellowships, supports public relations and lay education, and encourages many chapter services to the patient.

National Society for Crippled Children and Adults, Inc.—The 36 year old "Easter Seal Society" is the only national organization formed to serve all types of crippling, whether caused by birth, accident, or disease. The state affiliate for this group is the Texas Society for Crippled Children and Adults, Inc. During 1956 in Texas, a new treatment center was opened in Lufkin; new centers were constructed in Midland, Abilene, and Odessa; and the facilities of the Crippled Children's Hospital in Waco were expanded. In the near future, Fort Worth plans to expand a treatment center to a rehabilitation center. Better understanding by the public is a goal of this society, as is better understanding by industry, parents, and research. The society sponsors a 3 point program of direct services, research, and education. More than $12,000,000 was donated in 1955; some of the things this money bought were special education, speech therapies, social services, counseling and employment, recreation, community organization, and parent education. Prescription by a qualified physician is required for all medical equipment and services. Local chapters retain 77 per cent of the gross funds raised in a local area. The Texas Society receives 23 per cent, and 10.3 per cent of the 23 per cent is forwarded to the national society.

National Tuberculosis Association.—In the United States, there have been fewer deaths in recent years as a result of tuberculosis, but the number of new cases found each year has decreased far less rapidly. Last year, 100,000 new cases were found. In 1956, contributions in this country to the Christmas Seal Sale, which supports efforts of the voluntary tuberculosis associations, amounted to $26,310,491. The largest expenditure was for medical education, the next largest, for the publication of educational material and for consultation on educational programs. Tuberculosis associations in Texas are presently financing one research program in the amount of $8,750. Other Texas' research programs are being financed particularly in Dallas and Houston by local tuberculosis associations in those cities. Local tuberculosis associations in Texas retain 82 cents of each dollar raised.

Sister Elizabeth Kenny Foundation.—Sister Elizabeth Kenny emigrated to the United States from Australia in 1940; her work was with rehabilitation of neuromuscular diseases, but her methods were, at that time, unorthodox. After rebuffs from higher places, she found a center in Minneapolis

TABLE 2.—Two Highest Expenditures of 10 National Health Agencies*



*These figures are from annual reports submitted to the *Journal* in answer to a direct request for such material. Some agencies use the calendar year and some operate on a fiscal year basis. The year noted in each case is the end of a financial period and is the date listed for the annual report.

where she could give her treatments, and her success opened new doors of rehabilitation for her patients. She returned to her native land in 1952. The Sister Elizabeth Kenny Foundation, however, grew and flourished until today it is one of the leading health agencies, as far as funds are concerned. During 1956 donations amounted to $5,180,460. Almost half of that was spent for training therapists, public education and information services, grants for medical research, publicity and public relations, and additional treatment facilities. For medical and treatment costs involved in operating treatment centers, emergency treatment, medical and administrative supervision, $1,709,757 was allotted. A new wing to the Sister Elizabeth Kenny Institute in Minneapolis will provide expanded examination and follow-up facilities as well as a complete outpatient department, minor operating rooms, prevocational unit, and gymnasium. The foundation is financing the $1,500,000 addition with the help of funds provided through the Ford Foundation and the federal government.

United Cerebral Palsy Associations.—This organization has been active in Texas—through the efforts of UCPA, a survey of statewide etiology, treatment, education, and emotional status of cerebral palsied patients has been made. There are summer workshops for educators at the University of Texas each year, and grants have been made for hearing research at Southern Methodist University and to the Goodwill Industries in Dallas for a sheltered workshop. Operation of therapeutic centers for education and/or treatment of cerebral palsied persons in Houston, Waco, San Antonio, and Dallas is supported, and partial support is given to similar institutions in Austin, Fort Worth, Texarkana, Tyler, and Corpus Christi. During 1956, this organization received $8,700,000 in donations, and Texas' contribution totaled $135,000.

Although the family doctor remains the "Rock of Gibraltar" on whom his patients depend when catastrophic illness strikes, he, in turn, must depend on others to teach him new and better treatments and, ultimately, to find the causes and methods of prevention of these diseases. Even though he may be trained to do the research involved, and even though he may have advanced theories on the care and treatment of such patients, very few physicians have the time, funds, or equipment for such extensive work. Here the national health agencies provide much of the necessary financial aid. In addition, they give monetary help where community resources are limited; they provide educational materials for laymen, and they make the general public aware that there is a job to be done. And the thought, "People all over the nation have banded together to help me and others like me," can be a source of hope and strength to those whose lives have been affected by accident or disease.

Personals

Dr. Arild E. Hansen, Professor and Chairman of the Department of Pediatrics, was selected by the American Academy of Pediatrics to receive the Gail Borden Award for his research on essential fatty acids in the diet of infants. He was given the award at the Academy's annual meeting in Chicago.

Two Texas physicians, *Dr. Stanley W. Olson,* Dean, Baylor University College of Medicine, Houston, and *Colonel Roland K. Charles,* Deputy Commander, Brooke Army Hospital, Fort Sam Houston, were speakers at the American Medical Association's County Medical Societies Civil Defense Conference in Chicago November 9-10.

New officers of the Southwestern Society of Nuclear Medicine are *Dr. Jack G. S. Maxfield,* Dallas, president; *Dr. Herbert C. Allen,* Houston, president-elect; *Dr. R. C. Norman,* San Antonio, first vice-president; *Dr. Samuel B. Nadler,* New Orleans, second vice-president; and *Dr. James R. Maxfield, Jr.,* Dallas, secretary-treasurer.

Dr. Nicholas Hightower, Temple, spoke on "Newer Concepts of Achalasia of the Esophagus" at a recent meeting of the Missouri Academy of General Practice in Jefferson City.

Dr. George H. Peddie, clinical instructor in surgery, Baylor University College of Medicine, Houston, spoke on "Pathogenesis of the Postgastrectomy Syndrome" at the annual meeting of the Gulf Coast Clinical Society at Biloxi, Miss.

Dr. J. B. Trunnell and *Beatrix Cobb, Ph.D.,* Houston, were co-authors of a paper, "Personality Profiles, Stress and Endocrine Factors in Neoplastic Diseases," presented at the fourth annual meeting of the Academy of Psychosomatic Medicine at Chicago, October 17-19.

Texans who were guests at the October meeting of the Louisiana Academy of General Practice were *Dr. William F. Guerriero,* Dallas, who spoke on external endometriosis, and *Dr. E. S. McLarty,* chief of the preceptorship program in the University of Texas Medical Branch, Galveston, whose topic was "The Medical Student and the Preceptorship."

Dr. Arthur Grollman, professor at the University of Texas Southwestern Medical School, Dallas, and *Dr. George Clayton,* professor at Baylor University College of Medicine, Houston, spoke at the first annual Hertzler memorial symposium. The meeting, sponsored by the Hertzler Research Foundation, was held in Halstead, Kan., in early November.

A girl recently was born to *Dr. and Mrs. Dwight Langner* and a boy was born to *Dr. and Mrs. Rolan Botkins,* both in San Antonio.

In San Antonio, new parents of boys are *Dr. and Mrs. Brooks Mullins, Dr. and Mrs. Henry C. Dones,* and *Dr. and Mrs. Forrest M. Smith, Jr.* Baby girls were born to *Dr. and Mrs. William Hill, Dr. and Mrs. Richard Price, Dr. and Mrs. Alvin Thaggard,* and *Dr. and Mrs. Lloyd Berry.*

Michigan Health Plan Survey

Two Texas physicians attended the September meeting of the House of Delegates of the Michigan State Medical Society to hear the results of that organization's opinion survey of prepaid medical care coverage in Michigan.

Dr. Denton Kerr, Houston, President of the Texas Medical Association, and Dr. Roy T. Lester, Dallas, Medical Director of Blue Cross-Blue Shield of Texas, attended the meeting. They have reported some of the highlights of the survey, and the actions taken by the Michigan State Medical Society.

The survey showed that nearly half the people favored a deductible plan, and that large numbers of people were surprisingly unfamiliar with the details of what was and was not covered in their contracts. The people interviewed were willing to pay an average of $6.95 monthly if they could get what they wanted in their contracts. A variety of benefits was desired. More than 640,000 persons were contacted in personal interviews, by mail, or through questionnaires printed in newspapers.

On the basis of the findings in the survey, the Michigan Society appointed a Medical Care Insurance Committee to examine all contracts submitted, to recommend endorsement of any contract that met special outlined prerequisites, and to develop review committees in each district.

Several specific recommendations were made to include additional items in Michigan's Blue Shield Plan, and to add such features as might prove feasible. Contracts of three levels, designated by income levels, were recommended, as was broad coverage for retired persons.

Dr. Lester pointed out that Blue Cross-Blue Shield of Texas has recently released its new 200, 300, and 400 plans. These new plans incorporate practically every feature of the new proposal soon to be released in Michigan. One outstanding difference, of course, is that in Michigan all such plans are on a service basis, whereas in Texas all benefits are indemnity. Some of the new features are revised surgical schedule, increased in-hospital medical benefits, increased therapeutic radiology schedule and a special professional rider providing payment toward diagnostic x-ray and laboratory procedures in the doctor's office on a coinsurance basis. The new plans available in Texas do utilize the deductible principle, but only in certain types of cases.

TB Topics: Diagnosis

Since the death rate of pulmonary tuberculosis is falling so decidedly the idea has crept into the thinking of many people that this disease no longer is a health problem in our state. There are about 25,000 tuberculosis patients in Texas who need medical supervision. The contacts of these persons must reach to hundreds of thousands. Modern treatment methods are helping people to live longer with the disease, thus bringing to a high figure those who need medical care.

Being aware of this rather widespread need for medical care, the Texas Medical Association Committee on Tuberculosis is beginning a series, "TB Topics," to review for physicians some cardinal points in the control of this dread disease.

One important part of tuberculosis control is early diagnosis. The briefest way this can be reviewed is to list the methods used: medical history and physical examination, tuberculosis skin test, fluoroscopy and x-ray, repeated sputum examinations including smears and cultures, and cultures of gastric washings if there is no sputum. When a tuberculosis patient is found, all known contacts must be given skin tests and examined by x-ray. New cases must be reported to the proper health authorities.

—Committee on Tuberculosis,
Texas Medical Association.

Waco VA Hospital Makes Study

The Veterans Administration hospital in Waco is one of the 29 hospitals making a series of studies concerning chemotherapy in psychiatry in a continuing large-scale research program, announced the Veterans Administration. The cooperative study of tranquilizing drugs, which begun in April, will serve as the basic project for the studies, said Dr. Jesse F. Casey, Veterans Administration director of psychiatry and neurology service.

Houston Gets Poison Information Center

A Poison Information Center began operation in Houston in October to supply physicians with information on toxic materials found around the home. Convalescent poliomyelitis patients at the Wolff Home Rehabilitation Unit are providing the secretarial and telephone answering service for the Center. Baylor University College of Medicine is one of the co-operating organizations responsible for setting up the Center, and Dr. Harold Dobson, Houston, has acted as chairman of the organizational committee. Initial financing is being provided by the Riker Corporation, the Houston Pediatric Society, public relations board of the Harris County Medical Society, and the Houston Society of Internal Medicine.

Conference on the Handicapped Child

Educational, welfare, and medical leaders met in Houston October 28 for the first Governor's Conference of the Handicapped Child. The meeting drew representatives from state associations, service organizations, medical schools, hospitals, clinics, government, and social workers. Dr. Grant Taylor, dean of the University of Texas Postgraduate School of Medicine, was in charge of the program designed as a first step in coordinating efforts of private and public agencies in Texas' child rehabilitation activities.

Grand Rounds Seen in Dallas

The sixth in a series of Grand Rounds telecasts was seen November 13 in Dallas. The program stressed three major questions about coronary disease: What is the place and value of surgery? What is the role of dietary fats? Is long-term anticoagulation worthwhile?

As in the past, this live, 90 minute closed circuit telecast was shown in 55 cities by the Upjohn Company.

Automotive Crash Study Postponed

The extension of the Texas-Cornell Automotive Crash Injury Research program to include seven Texas counties has been postponed until December 1. This program was scheduled to begin on November 1 in Gregg, Brazos, Ector, Midland, Potter, Tom Green, and Navarro Counties.

Asian Flu Vaccine Potency Doubled

Surgeon General Leroy Burney of the United States Public Health Service has announced that it is possible to double the potency of the Asian influenza vaccine, and that more potent doses will increase not only the degree of immunity but the rapidity with which immunity is achieved. Manufacturers have been asked to make the change not later than December 1. Dr. Burney took this action on the recommendations of an ad hoc advisory committee to the Public Health Service Division of Biologics Standards.

Health Insurance Standards Set

A Code of Ethical Standards of the Health Insurance Association of America has been adopted recently. The purpose of this code is to encourage maintenance of the highest standards of protection and service and to sustain public confidence in the business of voluntary accident and sickness insurance.

The code lists nine specific points, governing the sale, administration, and advertising of voluntary health insurance. The Health Insurance Association of America is a trade association of 261 companies in the United States and Canada, representing more than 80 per cent of the voluntary health insurance in force through insurance companies.

Cleopatra wore an early form of sun glasses made of bamboo and jeweled with emeralds which, according to the Murine Company of Chicago researchers, actually were eyeshades to be worn at the galley races or other outdoor social gatherings of the times.

Brain Disease Booklet Published

A new illustrated publication on disease of blood vessels of the brain, third ranking cause of death in the United States, was recently released by the Public Health Service. The booklet states that strokes and other effects of cerebral vascular disease caused an estimated 179,110 deaths in 1956, and approximately 2,000,000 people are incapacitated or handicapped by brain blood vessel disease.

Many persons suffering from cerebral vascular disease can be restored to near-normal lives, reports Dr. James Watt, director of the Public Health Service's National Heart Institute and author of the publication. The booklet shows the five important ways in which vessel diseases impair the working of the brain and outlines steps involved in treatment and rehabilitation.

Medical Journals for Doctors Only

Professional medical journals, especially those containing articles on malpractice, are for the doctors to read and not the patients, according to a recent Colorado State Medical Society newsletter commented upon in the October issue of *Medical Economics*. Lansing Chapman, publisher of *Medical Economics*, agreed that such articles do not make appropriate reading for sick people waiting to see the doctors.

Medical Care Leaflet Published

The National Medical Foundation for Eye Care has recently published a pamphlet titled, "What Is an Ophthalmologist?" The booklet contains definitions of an ophthalmologist, an optician, and an optometrist. Copies are available by writing the foundation, 250 West 57th Street, New York 19.

MEDICAL SCIENCE NEWS

Human Emotions Measured

The Veterans Administration is measuring human emotions in an attempt to identify basic patterns in mental disease. Using electrical apparatus to record hidden physical responses to emotion-arousing situations, the research group plots emotional reactions in terms of what takes place within the body. It combines an electrocardiograph with an electroencephalograph, an instrument to measure skin resistance changes, an apparatus to record minute muscular activity from the patient's jaw and arm, and a tube to record breathing. Music, alternately soothing and rousing, and questions concerning the patient's problems, comprise the test. A tape recording of the interview and a strip of graph paper tell the story of the patient's emotional responses.

New Meter Measures Blood

A tiny electronic meter for measuring blood pressure has opened a new field for understanding heart failure, shock, and other blood circulation disorders, said the Veterans Administration. The meter, developed by Dr. Otto H. Gauer, a German physiologist, measures the pressures involved in the return of blood through the veins, which has been difficult in the past, said Dr. Herbert O. Sieker, assistant chief of medical service at the VA hospital in Durham, N. C.

Dr. Sieker has used the gauge to measure blood pressure in the veins of 10 normal persons and 15 patients with symptoms of heart disease, and usually takes from 50 to 100 different readings for each patient. The meter is inserted into a vein and may be gently pushed up and into the chambers of the heart and blood vessels of the lungs. The movement causes no pain or discomfort, and tissues of the veins are not damaged in any way, reports Dr. Sieker.

New X-Ray Machine Developed

A new technique for making x-ray films known as transverse tomography that assures more accurate location and x-ray treatment of cancer was recently demonstrated by the Veterans Administration doctors at the American Roentgen Society meeting in Washington. The x-ray machine produces films that show horizontal cross-sections across the patient's body, and gives much the same information as would living anatomical dissection of the patient.

The x-ray machine, adapted by the Bronx, N. Y., Veterans Administration Hospital, looks something like a dental chair. As the subject revolves, the x-ray tube pointing obliquely through the body obtains a horizontal cross-section image at any desired plane. Such machines have proved their value in fixing the exact location and size of tumors, according to Dr. Bernard Roswit, chief of the radiotherapy service at the Bronx hospital.

Blockain Used Successfully

Blockain (propoxycaine hydrochloride), a local anesthetic, proved effective in 71 surgical procedures without producing any side effects, according to the July *American Journal of Surgery*. The drug, recently introduced for infiltration and nerve block anesthesia, was found to be more potent than procaine, to have a greater duration of effect, and to be less toxic when used in comparable doses.

Most of the surgery involved amputations and repair of crushing injuries and lacerations, according to the report. A 0.5 per cent Blockain solution was used in an average volume of 3.3 cc., and the operative procedures varied from 6 to 90 minutes. Eleven of the 71 patients were given Demerol prior to surgery, stated the authors, Dr. John H. Mitchell, Jacksonville, Fla., and his associates, and in all cases the initial amount of anesthetic proved sufficient to maintain anesthesia throughout the entire procedure. Onset of anesthesia was instantaneous, reported the authors, and no delay in starting surgery was due to delayed anesthetic effect.

Freedom to select a doctor is part of everyone's great freedom to choose—to choose what he wears and eats; where he works and worships, and how he votes. Take away any part of this freedom and great damage is done to our democratic system.—Dr. Dwight H. Murray, Presidential Address before American Medical Association House of Delegates, Seattle, Nov. 27, 1956.

Hippocrates, the fifth century B.C. Greek physician, suggested hot foot baths for eye diseases, and in 1275, Marco Polo reported having seen eyeglasses in China.

MEMORIAL LIBRARY

First Medical Practice Act in Texas

The manuscript of the first Medical Practice Act in Texas is in the handwriting of Dr. Anson Jones, the last president of the Republic of Texas. Its authenticity is attested by the notes which appear on the reverse of the manuscript made by a noted collector of Texiana, Alexander Dienst.

This is the story of the manuscript.

After the battle of San Jacinto and the achievement of independence of Texas, Dr. Jones, who had served in the army in those stirring days, returned to his home in Brazoria to resume the practice of medicine. He did not seek office in the first Congress of the republic, but since the Congress met at Columbia, only a few miles from his home, he spent a great deal of time in observing its actions. He became in effect Texas' first medical lobbyist.

Dr. Jones realized that there were a great many persons coming into the territory and announcing themselves as physicians without the slightest training. Their practice was sustained only by their almost divine ignorance and gall. The asking of the intimate or personal question was considered most ungracious in this new land, and a man might preserve his anonymity with the first lethal weapon available. Of all the so-called doctors practicing in Texas at this time it is probable that not more than one-half dozen, other than Drs. Jones and Ashbel Smith, actually had attended a medical school. With this problem in mind, Dr. Jones wrote out a proposed Medical Practice Act.

Herbert Gambrell in his book, "Anson Jones," tells of the passage of the bill by the Senate at the behest of Senator Horton of Matagorda and Senator Everitt, a doctor from Jasper. The bill was reported to have died in the House of Representatives, on the table. When the second Congress met at Houston, Dr. Jones was there as the representative of his home county. The Senate of the second Congress repassed the bill but provided that the censors should be elected by the Congress. This amendment was acceptable to Dr. Jones and, after two or three minor changes, the final bill was very close to the original draft which is in the State Archives at present. When the bill was agreed to by the Senate, Dr. Jones and another member of the House invited the senators to a joint meeting at which the medical censors for the various districts of Texas were elected.

One question remains unanswered about this bill: One copy is marked "Representatives" and is certified by Arthur Robertson, secretary, as having passed the House on June 10, 1837, after suspension of the rules; the second copy is marked "Senate" and is shown by the same Robertson to have passed the Senate on June 10 and was received in the House of Representatives on the same date late in the afternoon. On June 12 it was read and laid on the table. Did the House unwittingly reject the bill it previously had passed or was the bill delayed in going into force by some mischance?

Under this bill physicians who presented diplomas from medical colleges to the censor did not have to pay a fee. Those without licenses were to appear before the censor and pay a fee of $10 for a temporary permit. The whole board was responsible for the final issuance of the permanent license to practice and the fee was $50. A fine of $500 was to be assessed for violation of the act, and the informant received half. An interesting provision of the act was the prohibition of unlicensed practitioners from collection, through legal means, of any debt accruing from their medical efforts.

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Clarke, T. Wood: Anson Jones; Doctor and Diplomat, New York State J. Med. 50:65-68 (Jan. 1) 1950.

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Gambrell, Herbert: Anson Jones, The Last President of Texas, Garden City, N. Y., Doubleday & Company, Inc., 1948.

Nixon, P. I.: Anson Jones, Medical Story of Early Texas, Lancaster, Pa., 1946, pp. 314-323.

Red, George R.: The Medicine Man in Texas, Houston, Standard, 1930, pp. 63-68.

Stuck, W. G.: Dr. Anson Jones, Last Texas President, Southern Surgeon 10:607-611 (Aug.) 1941.

—J. M. COLEMAN, M.D., Austin.

GIFTS TO THE LIBRARY

Dr. Leslie R. Ansley, Lubbock, 12 journals.
Dr. D. B. Faubion, Austin, 61 journals.
Drs. Heinrich and Annie T. Lamm, Harlingen, 38 books.
Drs. Georgia and Carey Legett, Austin, 190 journals, 4 books, pamphlets.
Dr. M. D. McCauley, Austin, 91 journals.
Dr. Morris Polsky, Austin, 43 journals.
Dr. Marion P. Primomo, Dilley, 61 journals, 1 book.
Dr. John F. Thomas, Austin, 7 journals, 1 pamphlet.
University Health Center, Austin, 262 journals.

Missing Journals Sought

The Memorial Library would like to have copies of the following issues of the *Bulletin of the Potter County Medical Society:* vol. 1, no. 8, July, 1947; vol. 2, no. 9, September, 1948; and vol. 5, no. 11, November, 1951. Postage will be paid on these journals if they are sent to the Memorial Library, Texas Medical Association, 1801 North Lamar Boulevard, Austin.

★ Books

Books Newly Acquired

Adlersberg, David: *The Malabsorption Syndrome,* New York, Grune & Stratton, 1957.

Allen, J. Garrott, and others: *Surgery Principles and Practice,* Philadelphia, J. B. Lippincott, 1957.

Barker, H. A.: *Bacterial Fermentations,* New York, John Wiley & Sons, Inc., 1956.

Blount, Walter Putnam: *Fractures in Children,* Baltimore, Williams and Wilkins, 1955.

Carmichael, Leonard: *Manual of Child Psychology,* New York, John Wiley & Sons, Inc., 1954.

Collis, Eirene, and others: *Infantile Cerebral Palsies,* Springfield, Ill., Charles C Thomas, 1957.

Senturia, Ben H.: *Diseases of the External Ear,* Springfield, Ill., Charles C Thomas, 1957.

Stern, Neuton S., and Stern, Thomas N.: *The Bases of Treatment,* Springfield, Ill., Charles C Thomas, 1957.

Teloh, Henry A.: *Methods in Surgical Pathology,* Springfield, Ill., Charles C Thomas, 1957.

Tovey, Geoffrey H.: *Technique of Fluid Balance,* Springfield, Ill., Charles C Thomas, 1957.

Walsh, Frank B.: *Clinical Neuro-Ophthalmology,* Baltimore, Williams and Wilkins, 1957.

Welsh, Ashton L.: *The Dermatologist's Handbook,* Springfield, Ill., Charles C Thomas, 1957.

Wilkins, Lawson: *The Diagnosis and Treatment of Endocrine Disorders in Childhood and Adolescence,* Springfield, Ill., Charles C Thomas, 1957.

Book Notes

Practitioners' Conference

CLAUDE E. FORKNER, M.D., F.A.C.P., Professor of Clinical Medicine, Cornell University Medical College; Attending Physician, The New York Hospital, Ed. Vol. 6. 378 pages. $6.75. New York, Appleton-Century-Crofts, Inc., 1957.

This volume represents the verbatim transcripts of conferences held at the New York Hospital–Cornell Medical Center. These conferences do not represent formalized lectures, but instead are informal discussions by the various panel members, together with questions and answers both from the floor and from the panel members and the editor, who also served as chairman of each of the conferences. Each conference is a chapter, covers a specific disease or group of diseases, and is covered by its own group of panelists representing the various medical and surgical specialties concerned in the disease entity.

The use of such a method of covering a subject definitely provides more interesting and stimulating reading than does the average medical text or monograph on a given subject and makes the book of more intellectual value to the reader in this respect. At the same time, however, it lessens the volume's value as a reference text, an objection which is probably not at all valid, since the editor undoubtedly did not intend it to serve as such. However, he has systematized each subject to the extent of including, at the end of each conference, a point by point summary of the main discussion subject, and the conclusions, if any, agreed upon.

This reviewer felt that the chapters, "Should Patients Be Told the Truth About Serious Illness?" "Cancer of the Prostate," "Endometriosis," and "Consultations with Anesthesiologists" were particularly well presented. Although in most cases these and the other conferences do not necessarily offer anything radically new and startling in diagnosis or treatment, careful and thoughtful perusal should help the reader to clarify his own thinking on the subjects, a result which should be well worth the purchase price.

—Rex G. Fuller, Jr., M.D., Weimar.

Therapeutic Exercises for the Treatment Of the Neurologically Disabled

HAROLD J. BRENNER, M.S., Assistant Chief, Corrective Therapy, and Supervisor of the Neurological Service, Veterans Administration Hospital, Sepulveda, Calif. 73 pages. $3.50. Springfield, Ill., Charles C Thomas, Publisher, 1957.

This is a book that should not have been written, as it indicates the author's deplorable lack of understanding of kinesiology and neuromuscular reeducation. It is a loose outline of therapeutic exercises, oversimplified to a point of becoming ludicrous, and serves no purpose whatsoever. The person who is engaged in administering this type of therapy should have a broader knowledge of the subject than this book offers. On the other hand, it is too sketchy, inaccurate, and at times erroneous in information to serve as a guide for students in this field.

There are numerous errors of fact, such as the statement, "the degree of paralysis [in hemiplegia] is in direct relationship to the size and location of the lesion," which obviously is untrue. Another remark is, "overstretching of the anterior muscles of the leg [of the hemiplegic] could result in an ankylosed dropfoot." Ankylosis is seldom if ever encountered from such a disability.

The other clinical entities are treated in a similar haphazard manner by the author with indications of complete ignorance of the fundamentals of basic physiology, pathology, or therapeutics.

—Odon F. von Werssowetz, M.D., Gonzales.

Clinical Use of Radioisotopes

WILLIAM H. BEIERWALTES, M.D., Associate Professor of Internal Medicine and Coordinator, Clinical Radioisotope Unit, University Hospital, Ann Arbor; PHILIP C. JOHNSON, M.D., Assistant Professor of Internal Medicine and Chief, Radioisotope Unit, Veterans Administration Hospital, University of Oklahoma Medical School, Oklahoma City; and ARTHUR J. SOLARI, M.S. (Physics), Instructor in Radiation Physics, Department of Radiology and Radiation Physicist for Clinical Radioisotope Unit and Kresge Research Isotope Unit, University Hospital, Ann Arbor. 456 pages. $11.50. Philadelphia, W. B. Saunders Company, 1957.

This book is a practical, complete, and carefully prepared work on the isotopes of greatest use in the active medical center.

A very complete section on the use of radioactive iodine in its various forms occupies a good half of the book. The remainder is devoted to radioactive phosphorus, gold, chromium, cobalt, and some of the less used isotopes. The biologic effects of radiation and the section on health physics are timely and are of particular importance to anyone who intends to set up a laboratory involving the use of isotopes. The comments on the management of an isotope laboratory and the discussion on the statistics of counting are all timely and important. In the back of the book are handy decay tables and data on the amount of shielding required for different levels of activity as the laboratory progresses and handles more material. The illustrations in this publication are well done, and it is printed on an excellent grade of paper chosen for ease in reading. It is recommended for anyone interested in isotopes.

—Joe C. Rude, M.D., Austin.

Movement of the Heart and Blood in Animals

An antomical essay, by WILLIAM HARVEY, translated from the original Latin by KENNETH J. FRANKLIN, and published for the Royal College of Physicians of London. 209 pages. $3.50. Springfield, Ill., Charles C Thomas, Publisher, 1957.

A new English translation of Harvey's immortal "De Motu Cordis" always is exciting news. This new translation by Dr. Kenneth J. Franklin of St. Bartholomew's Hospital (where Harvey worked) is both timely and excellent. The tercentenary anniversary of the death of William Harvey was celebrated in 1957, and the book was prepared for this occasion. The first 500 copies were given to the guests of the Harveian Society of London at the President's Ball in June, 1957. This was an inspiring occasion and was a "formal with decorations" affair that gave this great book a proper launching. The first English translation of "De Motu Cordis" was published by an unknown translator in 1653. There have been two other English translations: the well known Robert Willis translation for the Sydenham Society in 1847 and the more recent 1928 translation by Chauncey Leake, Ph.D., to commemorate the three hundredth anniversary of the publication of "De

Motu Cordis." The celebration in 1928, incidentally, was the only one of its kind ever held to commemorate the publication of a book.

The original Latin of Harvey in the 1628 edition of "De Motu Cordis" was poor and redundant and had so many errors that historians feel sure there was very little, if any, proofreading of the original book. This has led to many defects in the translations, which are gradually being cleared up. The nomenclature of the pulmonary blood vessels had to be reinterpreted, for example, because before Harvey's time the pulmonary artery was thought to be a vein. The heart proper was thought to consist only of the ventricles (the auricles were considered part of the vascular system). This new anatomical nomenclature has been admirably cleared up by Dr. Franklin.

Admittedly this book is fairly tedious reading, but the thought that it represents the "greatest piece of deductive reasoning the world has ever known" gives it added interest. Incidentally, and of much less importance, this book was translated into Russian for the first time this year.

This all adds up to the fact that the new English translation is the best of this second greatest book in the history of medicine (the first, of course, being Vesalius' "Fabrica," 1543). This book is a "must" for the library of every cultured, thoughtful, appreciative physician. It would make an excellent gift to any doctor, and I hope others will enjoy reading it as much as I have.

—William M. Crawford, M.D., Fort Worth.

Gifford's Textbook of Ophthalmology

FRANCIS HEED ADLER, M.D.; WILLIAM F. NORRIS; and GEORGE E. DE SCHWEINITZ, Professor of Ophthalmology, University of Pennsylvania Medical School; Consulting Surgeon, Wills Eye Hospital and Children's Hospital of Philadelphia. ed. 6. 499 pages. 277 figures; 26 color plates. $8. Philadelphia, W. B. Saunders Company, 1957.

Medical students and non-ophthalmologist physicians who wish to investigate eye problems more thoroughly will find that this book fills the need better than most textbooks in a similar category.

Dr. Adler writes as clearly as he teaches, keeping in mind the nonspecialists and making the book a pleasure to study. It is well indexed for quick reference, and the subject can be analyzed easily for pertinent points or for more detailed information as desired.

Some phases of descriptive anatomy and of treatment may be too detailed for general use, but for the ophthalmologist, it is a handy summation of the newer treatments and procedures.

This book certainly will be a useful addition to the libraries of students, practitioners, and ophthalmologists.

—Robert Eckley, M.D., Brownsville.

Synopsis of Obstetrics

JENNINGS C. LITZENBERG, M.D., F.A.C.S., Late Professor Emeritus of Obstetrics and Gynecology, University of Minnesota Medical School, Minneapolis. Revised by CHARLES E. MCLENNAN, M.D., Professor of Obstetrics and Gynecology, Stanford University School of Medicine, San Francisco. ed. 5. 403 pages. $6. St. Louis, C. V. Mosby Company, 1957.

Frequent revisions maintain this book as a timely study of obstetric advancement. The author remains well within the bounds of a broad subject in his 38 chapter treatise. The entire field of obstetrics is condensed and embodied in this relatively short presentation enabling those interested in this particular phase of medicine, and especially the busy general practitioner, to have a handy source for reference or review.

Limitations of a synopsis necessitate brevity. Consequently many of the chapters are in outline form, all topics being presented concisely but with full coverage. In fact most of the material appears dogmatic in its presentation as a result of the writer's aim to minimize the more or less irrelevant, to evaluate the questionable, to emphasize the important, and at the same time to maintain that balance between minimum and maximum stress so necessary to develop sound judgment.

In the fifth edition, published in May, 1957, deletion of outmoded materials, rearrangements, and revisions to incorporate only currently accepted obstetric methods in brief text is admirably accomplished. More lengthy discussion is given to important phases of obstetrics. Dystocia, diseases of the various systems of the body that affect pregnancy, and the mechanism of labor are discussed more liberally than other topics.

The outline form in which most of this publication is written and its brevity with no sacrifice of essential and important data give it a desirable place in the obstetrician's and the general practitioner's library for both study and quick reference.

—Glenn Mitchell, M.D., McKinney.

Occipitoposterior Positions

EDWARD L. KING, M.D., F.A.C.S., F.A.C.O.G., Professor Emeritus of Obstetrics, School of Medicine, Tulane University of Louisiana, New Orleans. 106 pages. $3.75. Springfield, Ill., Charles C Thomas, Publisher, 1957.

This is a book, as the name implies, dealing with some of the causative factors of occipitoposterior positions. It covers the problem encountered in labor and reviews the nonsurgical methods of correction and delivery. In the operative section there is an interesting review of the various types of forceps, application, and maneuvers, though several have long been outdated. Complications are touched on only briefly, and it is interesting to note that in no place is the cesarean section mentioned.

The book has some general interest, but could be classified neither as a manual nor a text.

—M. D. McCauley, M.D., Austin.

Atlas of Clinical Endocrinology; Including Text of Diagnosis and Treatment

H. LISSER, M.D., Clinical Professor Emeritus of Medicine and Endocrinology, University of California School of Medicine, San Francisco; and ROBERTO F. ESCAMILLA, M.D., Clinical Professor of Medicine, University of California School of Medicine, San Francisco. 476 pages. $18.75. St. Louis, C. V. Mosby Company, 1957.

This book is an attempt to present endocrine disorders in an atlas format. It is divided into 11 sections and 63 chapters. Seven sections are devoted to diseases of each of the endocrine glands. Other sections deal with the hypothalamus, the ovotestis (hermaphroditism), and miscellaneous syndromes and diseases not readily classified or definitely attributable to disturbed endocrine function. Finally, there is an appendix dealing with such subjects as height and weight, growth and development, bone age, and dentition.

The text is brief and much of it is presented in outline form. Each chapter treats a single clinical entity under the following headings: definition, symptoms, physical signs, laboratory findings, differential diagnosis, treatment, and prognosis. At the end of each chapter are a few selected references. A discussion of endocrine physiology, pathology, biochemistry, and experimental endocrinology has intentionally been omitted. Much of the space in the book is taken up by 148 plates (there are more than 800 illustrations) and 18 tables.

This book is well organized, and despite its format, quite readable. The index is adequate. The book is printed on a good quality of paper and well bound. No typographical errors were noted. In general the plates have been judiciously selected and are well reproduced.

Certain endocrine disorders, diabetes insipidus, thyroiditis, primary aldosteronism, hyperinsulinism, amenorrhea, male and female infertility, and the menopause, do not lend themselves particularly well to pictorial presentation. This unavoidable deficiency is apparent in this atlas.

No attempt has been made to treat endocrine disorders exhaustively. Debatable clinical entities, such as the male climacteric, and controversial subjects, such as the endocrine function of the thymus gland, are omitted. One wonders, however, why no chapter in the atlas is devoted to diabetes mellitus and why chapters are devoted to miscellaneous and relatively unimportant conditions, such as mongolism and disorders of the epiphyses, which have not been proven as yet to be due to disturbances of function of the endocrine glands.

This atlas reflects the extensive clinical experience of the authors and their excellent qualifications. Their atlas affirms the old cliche that a picture is worth a thousand words. This atlas can be recommended as an excellent primary source of general information on endocrine disorders; it is not, of course, intended as an exhaustive work or a reference source.

—R. L. Kendrick, M.D., El Paso.

Textbook of Pathology; With Clinical Applications

STANLEY L. ROBBINS, M.D., Associate Professor of Pathology, Boston University School of Medicine; Associate Director of the Mallory Institute of Pathology, Boston. 1351 pages. $18. Philadelphia, W. B. Saunders Company, 1957.

This book was written for the student and clinician. The author has attempted a more dynamic approach in writing a textbook in which there is a closer correlation of pathologic findings with the clinical picture. The text is well organized and easy to read. The chapters are outlined with a description of a normal morphology and physiology followed by major pathology. Each section also has a correlation of the pathology with the resultant clinical problem.

Another fine feature of the text is the listing of special references at the end of each section. Only the more select references are listed instead of the overwhelming number found in some textbooks. After each listing there is a short sentence stating the main feature of the article.

There are numerous excellent photographs and photomicrographs of various pathological lesions. Since the book was written chiefly to serve as a text for the student and clinician, there is some lack of detail of the different sections presented, but this should be considered as one of the outstanding features of the book. The text would not serve as a good reference for the practicing pathologist, but it does fulfill a great need as a text for the student as well as the clinician. The over-all presentation is excellent, and it should be a welcome addition to the student's library.

—John V. Denko, M.D., Amarillo.

The Riddle of Stuttering

C. S. BLUEMEL, M.D., F.A.C.P., Fellow of the American Psychiatric Association, Fellow of the American Speech and Hearing Association. 142 pages. $3.50. Danville, Ill., The Interstate Publishing Company, 1957.

The author seeks an answer to the riddle of stuttering in the field of psychiatry. In the first chapter, he limits the use of the term stuttering to the nonorganized speech and lack of fluency of childhood. He then introduces the term stammering for further discussion of this speech disorder. Stammering is divided into primary and secondary stammering. Primary stammering is the initial disorganization of speech which never has been securely established; secondary stammering refers to the three components of effort, negative conditioning, and anxiety which are part of the clinical problem.

The author considers stammering as more than a speech disturbance. It is only one symptom of a broad disorganization of a neurotic personality. Stammerers are often diffident, self-conscious, insecure, tense, poorly organized persons who are easily flustered by stress. Under the impact of stress, the poorly organized speech is readily disorganized to stammering.

Treatment is directed toward improving the basic personality and to increasing the patient's ability to think fluently, since speech is thinking out loud. Verbal thinking is improved by such exercises as ear training (listening to good speech, and special records), thinking the answers to questions, silent speech, and whispering. Group therapy was found to be advantageous as the stammerer can usually talk much better in unison with others. The secondary complications such as the effort phase, word phobias, and tensions gradually disappear as the patient improves his fluency in verbal thinking.

Dr. Bluemel has made an excellent contribution to the concept of this speech disorder being an emotional disturbance, or psychoneurotic symptom, rather than a speech impediment. The book is well written and can be understood by the nonprofessional reader because of the inclusion of a glossary of difficult terms.

—James E. Hamill, M.D., Port Arthur.

Textbook of Endocrinology

ROBERT H. WILLIAMS, M.D., Executive Officer and Professor of Medicine, University of Washington Medical School, Seattle, editor. Contributors William H. Daughaday; Peter H. Forsham; Harry B. Friedgood; John Eager Howard; Edward C. Reifenstein, Jr.; William W. Scott; George Van S. Smith; George W. Thorn; Lawson Wilkins; Robert H. Williams. ed. 2. Illustrated. 776 pages. $13. Philadelphia, W. B. Saunders Company, 1955.

This second edition has been brought up to date by the 10 original collaborators with the exception of Dr. L. H. Newburgh, who has been replaced by Dr. Daughaday. To incorporate the recent advances in a clear manner, most of the book has been rewritten. The latest diagnostic tests, drugs, and hormones are discussed. A new chapter on "Diagnosis and Treatment of Endocrinopathies: Hormone Preparations" has been added by the editor, who has stressed simplicity and practicality.

The defects in correlation are due to the number of authors. The book is recommended to the practicing physician.

Manual of Anesthesiology; For Residents and Medical Students

HERMAN SCHWARTZ, M.D.; S. H. NGAI, M.D.; and E. M. PAPPER, M.D., Anesthesiology Service, Presbyterian Hospital, and Department of Anesthesiology, Columbia University, College of Physicians and Surgeons, New York. 170 pages. $4.25. Springfield, Ill., Charles C Thomas, Publisher, 1956.

This handbook of anesthesiology is designed particularly for residents and medical students and would be suggested only for these people, or possibly one in general practice with a desire for a review of the fundamentals of anesthesiology. The manual is short, concise, and covers fundamental points in a little more than outline form.

Several publications preceded this manual which covered essentially the same material. S. C. Cullen published a book, "Anesthesia in General Practice," which is very similar.

—Newell D. Boyd, M.D., Kingsville.

Smoking and Its Effects: With Special Reference to Lung Cancer

SIDNEY RUSS, C.B.E., D.Sc., Professor Emeritus, University of London, Fellow of University College. 144 pages. $1.95. New York, MacMillan Company, 1955.

Systemic Arterial Embolism; Pathogenesis and Prophylaxis

JOHN MARTIN ASKEY, M.D., Associate Clinical Professor of Medicine, University of Southern California School of Medicine. 157 pages. $5.75. New York, Grune & Stratton, 1957.

This concise book gives a thorough discussion of the pathogenesis of systemic arterial embolism. Systemic arterial embolism arises in more than 90 per cent of the cases, either from clots of rheumatic origin in the left auricle, or clots of arteriosclerotic origin in the left ventricle. Rheumatic fever is the most frequent cause of systemic arterial embolism.

The author also gives a thorough discussion of prophylaxis and therapy. Three measures are available to reduce the recurrence of auricular thrombosis in rheumatic heart diseases: Dicumarol therapy, combination mitral valvoplasty and left auricular appendectomy, and conversion of auricular fibrillation to normal rhythm. Continuous Dicumarol therapy is indicated for patients with mitral stenosis and systemic arterial embolism, for those who are ineligible for mitral valvoplasty, and for patients who survive a severe or recurrent myocardial infarction. Continuous Dicumarol therapy is safe for ambulatory patients if they are carefully followed.

This book has a concise summary following each chapter, and is easily read.

—Frederick A. Elston, M.D., Sunray.

Causal Factors in Cancer of the Lung

CARL V. WELLER, M.D., Chairman of the Department of Pathology and Professor of Pathology in the Medical School, University of Michigan, Ann Arbor. 113 pages. $3. Springfield, Ill., Charles C Thomas, Publisher, 1956.

This monograph is a unique evaluation of the various presumed factors in the etiology of lung cancer. Both the historical and practical approaches to this subject are given thorough and careful study; factors such as atmospheric pollution from domestic and industrial sources as well as highways and combustion products from automobile engines are included. The author also discusses the available information regarding the importance of arsenic and benzpyrene. The various components of cigarette smoke are evaluated, and the author comes to the final conclusion that probably benzpyrene in inhaled cigarette smoke is of primary importance. The author further states that his views on the subject are diametrically opposed to those which he has held in earlier years, and he now thinks that cigarette smoking and bronchogenic carcinoma are causally related.

—S. P. Wise, III, M.D., San Benito.

The Treatment of Burns

CURTIS P. ARTZ, M.D., F.A.C.S., Lt. Col., MC, USA (Ret.), Formerly Director, Surgical Research Unit, Brooke Army Medical Center, Fort Sam Houston; Presently, Associate Professor of Surgery, University of Mississippi Medical Center, Jackson; and ERIC REISS, M.D., Instructor in Medicine, Washington University School of Medicine, St. Louis. Illustrations by BURR BUSH. 250 pages. Philadelphia, W. B. Saunders Company, 1957.

It was indeed a pleasure to review this well-written book. As the authors state in the preface, "it is an outline for the treatment of burns."

The authors have pooled the sum of their vast experience in the field of burn therapy and have written in brief and concise statements their recommendations as to the best method of handling each problem. Their discussions of the various methods used are limited with the result that the book consists almost entirely of practical information with little theoretical discussion. The individual chapters on immediate care, fluid therapy, and wound care should enable even the uninitiated to do a satisfactory job. The entire field of repair is thoroughly covered, and reference is made to the multitude of minor problems and complications which one is likely to encounter.

The chapters on burns of special or specific areas, special types of burns, and the problem of infection are more than adequate. There is a thorough discussion of the metabolic alteration and the problem of nutrition in burn cases. The chapter devoted to practical details in burn therapy includes even the most minute details encountered in nursing care of burns.

In brief, this is a well written, small volume containing a wealth of information covering the entire field of burn therapy. It should be a welcome addition to the library of every physician who treats burn cases.

—H. C. McQuaide, M.D., Bryan.

Diseases of the Breast

C. D. HAAGENSEN, M.D., Professor of Clinical Surgery, College of Physicians and Surgeons, Columbia University; Director of Surgery, Francis Delafield Hospital, Columbia–Presbyterian Medical Center, New York. 751 pages. $16. Philadelphia, W. B. Saunders Company, 1956.

This is a superb book written for the practicing physician in a thoroughly interesting manner. It covers every aspect of breast disease as the title implies, but is much broader in scope. Few textbooks have the unique quality of appealing to every phase of medical practice; this book definitely rates such a position.

Dr. Haagensen treats the subjects of anatomy, physiology, and deviations from normal in a practical, readable, and up-to-date fashion. He never is boring in detail. The section devoted to carcinoma probably is one of the most complete ever produced and is alone worth the purchase price.

This book is recommended for all clinicians whether they be pediatricians, geriatricians, surgeons, or internists. Every doctor who has ever seen or felt a "lump" in the breast should have this text on his office shelf.

—Wade H. Lewis, M.D., San Antonio.

Diseases of the Heart

CHARLES K. FRIEDBERG, M.D., Attending Physician, Mount Sinai Hospital; Associate Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York. ed. 6. 1161 pages. Philadelphia, W. B. Saunders Company, 1956.

This is one of the most complete, if not the most complete, books on the heart in print today. It gives a complete picture of the recognition, treatment, and understanding of every type of cardiac disorder. The discussions on every subject are detailed and complete. All significant new advances of diagnosis and therapy have been incorporated in this new edition. A new section on the graphic methods of examination has been added with chapters on roentgenology, electrocardiography, ballistocardiography, phonocardiography, cardiac catheterization, and other methods.

The major section of the book includes cardiac surgery with indications and contraindications for this new field. Everything one wants or needs to know concerning the therapy of heart disease—drugs, rest, diet, surgery, preoperative and postoperative care, and rehabilitation—is included.

—Thomas R. Jones, M.D., Jasper.

Bacterial Fermentations

H. A. BARKER, Ed. Ciba Lectures in Microbial Biochemistry. 95 pages. New York, John Wiley & Sons, Inc., 1956.

Foot Troubles

T. T. STAMM, F.R.C.S. 122 pages. $4.75. New York, Philosophical Library, Inc., 1957.

The Recovery Room; Immediate Postoperative Management

MAX S. SADOVE, M.D., Professor of Surgery (Anesth.) and Head, Division of Anesthesiology, University of Illinois College of Medicine and the Research and Educational Hospitals, and JAMES H. CROSS, M.D., Clinical Assistant Professor in Surgery, University of Illinois College of Medicine, with contributions by 24 authorities. Illustrated. 597 pages. Philadelphia, W. B. Saunders Company, 1956.

The interest in recovery rooms stems from experience in front line hospitals in World War II where the immediate availability of almost all medical and physical facilities necessary for the sick and wounded was the outstanding characteristic and the main contribution to the reduction of mortality. The contributors have assembled all the data relative to the planning and function of a recovery room. They attempt to discuss in detail the management of patients who have undergone various surgical procedures.

The book should be of interest to hospitals that wish to set up a recovery room or to evaluate one that is already in existence. Surgeons who do not have such facilities might make use of some of the measures advocated in the postoperative care of the patient. Interns and surgeons in training and nurses actively engaged in care of patients should find this book valuable.

The Care of the Expectant Mother

JOSEPHINE BARNES, D.M. (Oxon.), M.R.C.P. (London), F.R.C.S. (England), F.R.C.O.G., Assistant Obstetrician and Gynaecologist, Charing Cross Hospital and Elizabeth Garrett Anderson Hospital; Surgeon, Marie Curie Hospital. 270 pages. $7.50. New York, Philosophical Library, 1956.

This brief but comprehensive volume describes the prenatal care of the normal as well as the abnormal pregnancy. It is, as the preface states, "a practical guide for all who undertake the management of pregnancy," but will probably be of greater benefit to the medical student and the general practitioner than to the obstetric specialist.

The book is divided into three sections. The first deals with normal pregnancy and discusses anatomy, physiology, routine examinations, and advice to the expectant mother. There is an interesting chapter on maternity services in Britain under the National Health Service. The second section covers abnormal pregnancy and discusses briefly diagnosis and treatment of abnormalities arising during the antenatal period. The third section discusses diseases complicating pregnancy, particularly as the disease affects the course of the pregnancy, as well as coexisting maternal disease.

This concise and readable study should be a valuable aid to the student and the practitioner on obstetrics.

—E. T. Crim, M.D., Greenville.

The Lung as a Mirror of Systemic Disease

ELI H. RUBIN, M.D., Professor of Clinical Medicine, Albert Einstein College of Medicine, Yeshiva University; Attending Physician, Division of Pulmonary Diseases, Montefiore Hospital, New York. 288 pages. $12.50. Springfield, Ill., Charles C Thomas, Publisher, 1956.

The title of this book emphasizes a feature of pulmonary disease which is frequently overlooked. The lung indeed is almost the only structure in the body about which considerable information can be obtained from as simple a procedure as standard roentgenography. In a certain sense one may say that by means of x-rays it is possible to look into the interior of the body and to identify inflammations as they pertain to such specific structures as collagen, blood vessels, or serosal surfaces. Not only is this true, but it is possible in a manner comparable only to direct observations of superficial inflammations and their resolution in the lung.

In his enthusiasm for this unique aspect of pulmonary radiography the author is sometimes carried perhaps a little too far by his thesis. The limits of what may be considered systemic disease are considerably overstepped. Indeed at times the book belies its title and becomes a review of practically every kind of disease that can be found in the body or in the lung. That the classification followed is not entirely acceptable is an incidental comment.

In spite of these faults the book contains excellent illustrations of a great variety of pulmonary diseases and good discussions of certain of the systemic diseases. Illustrations are plentiful and for the most part very good. It may be recommended as a not too technical approach to the problem of diagnosis of pulmonary diseases.

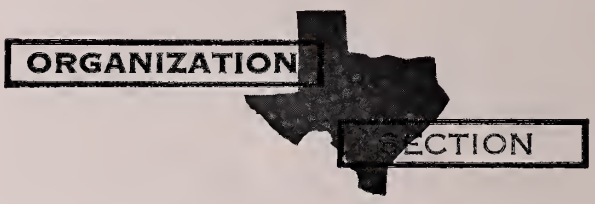
—John S. Chapman, M.D., Dallas.

Problems in Amoebiasis

CHARLES WILLIAM REES, Ph.D., Head, Section on Protozoal Diseases, Laboratory of Tropical Diseases, National Microbiological Institute, National Institutes of Health, United States Public Health Service, Bethesda, Md. 119 pages. $4.75. Springfield, Ill., Charles C Thomas, Publisher, 1955.

Clinical Toxicology of Commercial Products

MARION N. GLEASON, Research Assistant in Pharmacology, School of Medicine and Dentistry, University of Rochester, Rochester, N. Y.; ROBERT E. GOSSELIN, M.D., Ph.D., Professor of Pharmacology, Dartmouth Medical School, Hanover, N. H.; HAROLD C. HODGE, Ph.D., D.Sc., Professor of Pharmacology and Toxicology, School of Medicine and Dentistry, University of Rochester, Rochester, N. Y. 1160 pages. $14.40. Baltimore, Williams & Wilkins Company, 1957.



★ American Medical Association

AMA Plans Clinical Meeting

The eleventh clinical meeting of the American Medical Association to be held December 3-6 in Philadelphia will be aimed at helping to solve the daily practice problems of the family physician, according to Dr. Thomas G. Hull, secretary of the American Medical Association's Council on Scientific Assembly. Approximately 4,000 physicians are expected to attend the clinical meeting, which has been planned in cooperation with Philadelphia physicians.

Scientific meetings and sessions of the House of Delegates will be held at the Bellevue-Stratford Hotel.

One hundred twenty scientific exhibits and 160 technical exhibits will be displayed in the Convention Hall. An exhibit on medical history, prepared by a group of Philadelphia doctors, will be shown.

Lecture meetings, symposiums, and panel discussions on such subjects as juvenile delinquency, cardiovascular disease, hypertension, diabetes, arthritis, and obstetrical problems will be among the special features of the meeting. Approximately 200 physicians will participate in these activities. Also numerous motion pictures will be shown in Convention Hall. "M. D. International," a film which will be carried on the National Broadcasting Company network this

spring, will be previewed for the physicians in the ballroom of the Sheraton Hotel. The film deals with American physicians practicing in remote areas of the world.

Closed circuit colored television again will be shown to doctors attending the meeting. Programs will include those originating in Philadelphia's Lankenau Hospital brought directly to the meeting hall. Another feature of the meeting will be a trans-Atlantic conference between physicians in Philadelphia and London. A conference on advances in chemotherapy of cancer will be held via telephone.

The General Practitioner of the Year will be named during the meeting.

A special concert for registrants by the Westminster Choir of Princeton University, Princeton, N. J., in the ballroom of the Sheraton Hotel will be an entertainment sidelight.

Delegates to the American Medical Association from the Texas Medical Association are the following: Dr. T. C. Terrell, Fort Worth; Dr. M. O. Rouse, Dallas; Dr. J. B. Copeland, San Antonio; Dr. Troy A. Shafer, Harlingen; Dr. John K. Glen, Houston; Dr. L. C. Heare, Port Arthur; and Dr. James H. Wooten, Columbus. Dr. Rouse serves as chairman of the delegation. Dr. Charles T. Stone of Galveston is a member of the House of Delegates through the Section on Internal Medicine.

Drs. Heare and Wooten will be unable to attend the meeting, but Drs. Ridings E. Lee, Dallas, and J. C. Terrell, Stephenville, will represent them.

The Texas delegates plan to recommend that a special council of the AMA on insurance be established since the problems of insurance have multiplied so rapidly. The delegates believe that this council should be of the same standing as the other permanent councils under the Board of Trustees with a full-time doctor as secretary of the council. Although a council on insurance is not recommended specifically in the report of Robert Heller and Associates (the recent study of AMA organization by an independent consultant), the proposed arrangement would be in keeping with the suggestions in the Heller Report. It is anticipated that the Hyland Committee, which will recommend action on the Heller Report at the Philadelphia meeting and of which Dr. Stone is a member, may point out the need for a special insurance council. If so, the Texas delegates will support the recommendation.

The Heller Report also suggests a plan whereby the Board of Trustees would be elected according to a geographic basis which the Hyland Committee is considering and which will be brought before the House at the December session.

All reservations for Philadelphia hotels, information for which is listed in current issues of the AMA *Journal,* should be cleared through the AMA Subcommittee on Hotels, Juniper and Filbert Streets, Philadelphia 7, before November 23.

AMA Circulates New Exhibits

The American Medical Association's Bureau of Exhibits has many health and scientific exhibits available for showing at medical and scientific meetings and at lay gatherings such as county fairs. They may be borrowed by qualified groups without rental charge; they are complete units ready for installation and some are small and portable enough to be carried in a passenger automobile.

These exhibits come in a variety of sizes, and use every means of visual education to stress their points. Exhibits for the general public include such topics as mechanical quackery, alcohol tests for drinking drivers, animals in research, beginnings of life, the heart, bones and muscles, digestion, eyes, ears, weight reduction, sinus trouble, cancer, accidental poisonings, farm accidents, immunizations, and the patient and his medical care.

For doctors, topics include health appraisal of the school child, foods in oral electrolyte therapy, professional liability, hazards of solvents, diseases transmitted from animals to man, brucellosis, standard nomenclature, alcoholism, and modern quackery in the form of a "medicine show."

The borrower must provide adequate space for the exhibit, install it, furnish necessary electric outlets and additional illumination, provide a well qualified attendant who can demonstrate the exhibit properly, and pay shipping charges both ways on the material.

Requests for exhibits should be instituted as far in advance as possible so that the proper reservations can be made. Further information may be obtained from the Director, Bureau of Exhibits, American Medical Association, 535 North Dearborn, Chicago 10.

Orders Being Taken for AMA Directories

Orders are being taken now for the 1958 edition of the American Medical Directory to be ready for distribution in the summer of 1958. Before January 1, 1958, the copies will sell for $30 to those in the United States and $33 to those outside the United States. After that date the price on all orders will be increased $5.

The twentieth edition of the AMA Directory will have complete data on 260,000 physicians, with 100,000 changes of address since the 1956 edition and data on an additional 19,000 new physicians.

Orders may be sent to the American Medical Association, 535 North Dearborn Street, Chicago 10.

New Editor for Today's Health

The special feature editor of *Better Homes and Gardens* since 1951, James Liston, has been named chief editor of *Today's Health,* the American Medical Association's health magazine for laymen. He replaced Dr. W. W. Bauer, who has been chief editor of *Today's Health* since 1949, on November 15. The appointment of a full-time editor is the first in a series of proposed changes in the organization of *Today's Health.*

★ Texas Medical Association

New TMA Group Insurance Available

Enrollment of members of the Texas Medical Association, in the new Accidental Death, Dismemberment, and Loss of Sight Insurance Program, is now in progress. This new program supplements and is not in conflict with the "True Group" Disability Insurance Program which was inaugurated and made effective November 1, 1955. This insurance program has been authorized and endorsed by the Texas Medical Association and represents another service of the Association to the doctors of this state.

Principal sum benefits from $50,000 to $250,000 are available and are payable to the insured for the accidental loss of sight of one or both eyes, the accidental loss of one or more limbs, or to his named beneficiary in the event of accidental death.

Five plans are available—plans A, B, C, D, and E with descending values and premiums. Principal sum benefits vary from $250,000 under Plan A to $50,000 under Plan E.

Members under age 60 may apply for Plans A, B, C, D, or E; and members aged 60 to 70 may apply for plans D or E. This program will enable the insured to carry his benefits to the first premium due date beyond his 70th birthday, subject to a limit of $100,000 at age 60.

Additional information pertaining to this Texas Medical Association sponsored and endorsed Accidental Death, Dismemberment, and Loss of Sight Insurance Program may be obtained upon inquiry addressed to the Central Office of the Association.

Legislation Spotlighted By TMA Committee

The Texas Medical Association's Council on Medical Jurisprudence, headed by Dr. G. W. Cleveland, Austin, has sent a letter summarizing key medical issues likely to be considered by Congress in 1958 to all legislative chairmen and committee members, presidents, and secretaries of county medical societies.

The letter emphasizes the danger of the Forand amendments, which would provide free hospital and surgical care for more than 12 million beneficiaries of Social Security. The Jenkins-Keogh bills may have a chance for passage in 1958, and pamphlets on the Forand and Jenkins-Keogh bills were included with the letter. Additional literature is available from the Texas Medical Association, 1801 North Lamar Boulevard, Austin. The Council also is prepared to provide speakers on legislation for county medical society meetings.

Dr. Cleveland urged county medical society representatives to be present at the Sixth Annual Conference of County Society Officials and Symposium on Legislation to be held January 18 in Austin.

New Anson Jones Award

The selection of nominees for the 1958 Anson Jones Award will present again this year the opportunity for county medical societies to let Texas newspapers know that the medical profession is deeply appreciative of the constantly improving efforts in medical reporting. Initiated in 1957, the award, consisting of a bronze plaque and $250, is presented by the Texas Medical Association annually in appreciation of "distinguished accurate lay medical reporting" by some Texas reporter.

Dr. Anson Jones, a prolific writer, was the last president of the Republic of Texas, and instituted the first legislation to insure that only licensed physicians could practice in Texas.

Blair Justice, medical writer for the *Fort Worth Star-Telegram,* was recipient of the 1957 Anson Jones Award. He was awarded the recognition on the basis of his stories on the University of Texas Medical Branch at Galveston, the Texas Academy of General Practice scientific assembly, the M. D. Anderson Hospital cancer research symposium, the Association's annual session, and "general local medical reporting."

Selection of nominees for the award will be made by the county medical society where each newspaper is located. The society, which will coordinate its selection, or selections, with the editor of the newspaper, will then forward name or names of nominees with a presentation of writing accomplished to the Association's central office in Austin. All names should be in the hands of Mr. C. Lincoln Williston, Executive Secretary, by January 1, 1958. The Association's Committee on Public Relations will then determine a winner at its meeting on January 17, 1958. The recipient's name will be released at that time.

In order that all newspapers will have an opportunity to nominate for the award, letters of complete information will be mailed to the editors and city editors. Also, county medical society officers will receive complete information on the award and how they may select their nominees. Presentation of the Anson Jones Award will be made during the Association's 1958 annual session in Houston, April 19-22.

January Meeting to Aid Officers

Two out-of-state guests have accepted invitations to speak at the Texas Medical Association's sixth annual Conference of County Society Officials and Symposium on Legislation to be held in Austin, January 18. A third speaker will be announced later. Those who have accepted are Dr. J. Lafe Ludwig, Los Angeles, who is a member of the committee on legislation of the American Medical Association, and Dr. Kenneth McFarland, Topeka, Kan., who is educational consultant for General Motors and is sponsored through the courtesy of General Motors.

Officers of county medical societies will learn more of problems confronting American medicine through panel discussions and talks by Association officials. The conference will be held simultaneously with meetings of Association committees and an indoctrination program, designed to acquaint the new members with the services of the Association.

The interim policy making body of the Association, the Executive Committee, will meet on January 19 to hear reports of boards, councils, and committees.

Conference on Schools, Physicians

The Texas Medical Association's Committee on School-Physician Relationships will hold the second state Conference on Physicians and Schools on January 7 and 8 in Austin. The Conference, dedicated toward improving the health of the school-aged child, will consist of panel discussions on problems of mutual interest to physicians and educators.

Guest speakers for the meeting will be Fred V. Hein, Ph.D., Consultant in Health and Fitness, Bureau of Health Education, American Medical Association, Chicago, and L. P. Sturgeon, Director of Public Relations, Texas State Teachers Association, Austin.

Panel members will consist of practicing physicians, educators, and public health physicians. Participants will include physicians, school administrators, public health personnel, school nurses, representatives from the Parent-Teachers Association, teachers associations, Woman's Auxiliary to the Texas Medical Association, and other interested persons.

Medical Student's Day Planned

The fifth annual Medical Student's Day presented by the Texas Medical Association will be held at the University of Texas Medical Branch at Galveston on Saturday, December 7, and at the Baylor University College of Medicine on Friday, December 6. Medical Student's Day was held at the Southwestern Medical School on September 5.

Junior and senior students are invited to attend the program, designed specifically to acquaint the students with the socioeconomic aspects of medical practice. A panel of Texas physicians and lay executives will speak on such topics as,

"The Business Side of Your Practice"; "You, Your Practice, and Socioeconomic Trends Which Affect It"; "Your Practice and Public Opinion"; and "The Legal Aspects of Your Practice."

Members of the Committee on Public Relations, which initiated these student programs, point out that these events are good public relations in that they let the students know that the Texas Medical Association is interested in them from the time they decide to become physicians.

Doctor Supply Studied

General practitioners are in greatest demand in Texas according to the Texas Medical Association's placement service spokesman. By far the most difficult specialty vacancies to fill are eye, ear, nose, and throat; pediatrics; internal medicine; and ophthalmology. The least difficulty is encountered in recruiting general surgeons, obstetricians, and gynecologists. Calls seldom come to the placement service for specialists in anesthesiology, dermatology, industrial medicine, public health, orthopedics, or psychiatry. More frequently requested, and moderately difficult to obtain, are radiologists, pathologists, and urologists.

Some 43 communities in Texas still are in need of one general practitioner or more. However, more than four-fifths of these have a population of less than 10,000 and nearly half are smaller than 3,000.

★ County Societies

Grievance Committees: Do They Really Work?

The grievance committee, through publicity in the lay press and promotion by the American Medical Association, is becoming an important and necessary cog in the gears of local level organized medicine. Because the general public likes to know that there are channels through which misunderstandings can be aired and the medical profession recognizes the advantages of personal discussion and arbitration in such cases, more and more county medical societies are providing grievance committees for this purpose.

History of Grievance Committees

Perhaps the earliest committee created for the purpose of settling grievances was established 81 years ago by the Massachusetts Medical Society as a committee on ethics and discipline; it still is functioning. The Minnesota State Medcal Association established such a group in 1936, but not until 1947, when the Colorado State Medical Association formed a grievance committee and urged the public to take advantage of its services, did the idea begin to spread. Two years later, an Oklahoma committee was met with such enthusiastic reception by the public and the lay press that the American Medical Association investigated the effectiveness of this and the Colorado committees, and officially approved the movement and urged state societies to establish grievance committees to hear and settle complaints.

In Texas, the board of censors at the local level, and the Board of Councilors at the state level, traditionally have been the "grievance committees," but the Constitution of the Texas Medical Association made no provision for handling of grievances of the general public until about 1951 when a state-level Public Grievance Committee was set up. It was authorized only briefly, until it was realized that there was no need for a group to overlap the duties of the Board of Councilors. In 1952, it was included in the Constitution that county societies should have a public grievance committee to consist of 3 or more members appointed by the president of the society, each with a 3 year term of office, and arranged insofar as possible so that terms would overlap.

Texas Committees in Action

Just how widespread is the work of the grievance committee in Texas? Are many cases handled? Does their mere existence bring about complaints? And if they are composed of doctors, do ethical physicians rule against their colleagues? These are some of the things that the *Journal* has tried to find out. A questionnaire on the subject was sent to all secretaries of county societies in Texas (there are 115), and 39 replies had been received at the time this article was written. Thirty of these indicated that their society did have a functioning grievance committee, but it is noteworthy that only 8 groups had more than 1 case during the past year. The Secretary of the *Hill County Society* commented, "There is no need [for a grievance committee] here in our small community, but to have the machinery set up is a good thing." In *Camp-Morris-Titus Counties Society,* the lone complaint was from a victim of chronic paranoid schizophrenia who believed local doctors were trying to poison him.

The number of grievances reported to be handled annually are as follows: *Brazos-Robertson*, 1-2; *Camp-Morris-Titus, Denton, Comal, Lampasas-Burnet-Llano, Grayson, Anderson-Houston-Leon,* 1 each; *Webb-Zapata-Jim Hogg,* 1 in the past 2 years; *Gregg,* "several"; *McLennan,* 5-6; *Andrews-Ector-Midland,* 6; *Travis,* 4-12; *Bexar,* 5-10; *Tarrant,* 12; *Harris,* 30-35; *Dallas,* 50.

Concerning publicity for the grievance committees, in no societies are the names of the committee members made public, but 8 groups publicized the fact that a grievance committee had been appointed at the time it was initiated. In only 4 areas, however, does the committee receive periodic publicity to keep the community aware of its existence. Even though some societies report that the grievance committee often finds the physician at fault and that suitable corrective action is taken, these actions never are made public. The executive secretary of the *Bexar County Medical Society,* explained this, "Corrective action [is taken, but] not made public since the complaints were not made public." In *Harris County,* no findings are "made public," but at times it is necessary for the complainant to be advised that "appropriate action has been taken." *Andrews-Ector-Midland Counties Society* sends a letter to the patient only, and explains the findings of the committee and the action taken. In *Travis County,* the executive secretary says that when physicians have been found at fault, they have agreed to abide by the ruling of the committee; there has been no publicity.

Most of the complaints involved fees, and often all that is necessary is an itemized account of the charges. (In Harris County, complaints alleging overcharge are referred to the adjudication board.) When the committee believes a physician to be at fault, a reprimand is given or other action is taken, such as putting the doctor on probation. Proponents of grievance committees say that such actions breed confidence in the public; when actual injustices occur, appeal to a committee is useless unless the complainant can be assured a fair hearing.

In no instance did a society report any conflict between the grievance committee and the board of censors.

What of the committee's set-up? Who sits on the com-

mittee, and for how long? How much time do members spend in hearings?

In 23 societies responding to the questionnaire, the members of the grievance committee are appointed by the president. Three societies elect grievance committee members. In 1 society, the last 5 living presidents compose this committee; in 1 society they are appointed by the secretary-treasurer; and in 1 society the group as a whole sits as a grievance committee. Most (20) of the responding societies have 3 doctors on the committee, membership in other societies ranges from 2 to 15. In general, terms are from 1 to 3 years, and are set up on an overlapping basis.

Time spent by the committee in hearings varies widely; in large societies where many cases are investigated, members may spend from 40 to 65 hours per year in hearings. Where only a few cases are considered each year, the time spent may be only 2 or 3 hours annually.

Most secretaries who responded to the questionnaire believed that the committee had produced desirable results in their communities. The secretary of *Washington-Burleson Counties Society* answered "no" to this question, and explained, "No one but the profession knows of it." A few other secretaries checked "no" to this question, but offered no explanations.

McLennan, Tarrant, Harris, and *Dallas Counties Societies* have had letters from persons whose grievances were heard, expressing thanks and satisfaction with the handling of the cases. *Harris County Society* reports that the few who are unhappy state that they could not expect a "fair hearing" from a committee composed entirely of physicians.

But what of the societies that have no organized committee to deal with complaints? So far, report these groups, no complaints have been received except those that are taken up with the individual doctor. The secretary of the *Anderson-Houston-Leon Counties Medical Society* explains that his group get about 1 complaint a year, and that the board of censors acts as a grievance committee in these cases.

School of Aviation Medicine Hosts Bexar County Society

The October meeting of the *Bexar County Medical Society* was held at Randolph Air Force Base in conjunction with the School of Aviation Medicine, San Antonio. The executive secretary of the society reports that there was an unusually large attendance, both of military personnel and civilian doctors.

The program, a symposium on atherosclerosis, included 3 presentations by personnel of the School of Aviation Medicine and an address by Dr. Frederick J. Stare, Harvard University School of Public Health, Boston.

Cocktails and dinner were served.

★ District Societies

Dr. Kerr to Speak At District Meeting

The Twelfth District Medical Society meeting will be held January 14, 1958, at the First Methodist Church in Corsicana. The program is as follows:

Management of Complications of Hiatal Hernia—Dr. Robert R. Shaw, Dallas.
Kidney Trauma—Dr. Harry M. Spence, Dallas.
Why Not Transfusions?—Dr. Harry M. Spence, Dallas.
Meningitides in Children—Dr. Edward L. Pratt, Dallas.
Endometrial Carcinoma—Dr. William P. Devereux, Dallas.
Management and Diagnosis of Nephritis—Dr. John A. James, Dallas.

A luncheon will be held, and Dr. Denton Kerr, Houston, will give the address.

WOMAN'S AUXILIARY

Doctors' Wives Aid In Legislative Programs

Aside from the actual practice of medicine, legislation is one of the most important problems with which the medical profession is concerned. The Woman's Auxiliary to the Texas Medical Association is well aware of this. In some instances the women are even more conscious of the necessity of being informed on the current activities of our lawmaking bodies than are the doctors.

The Auxiliary makes every effort to supply information to the component groups and to make each individual member feel her own responsibility for becoming informed on legislative topics. Educational pamphlets are distributed throughout the state, and the regular reading of national newsletters is stressed. Often, time is set aside at Auxiliary meetings for discussion of pending legislation.

By being informed, the women of the Auxiliary are ready to help their husbands whenever they are called upon, whether it be sending telegrams or performing any other tasks that might be assigned. They can make their influence felt in their communities by selling poll taxes, seeing that hospitalized persons obtain absentee ballots, or rounding up persons to attend precinct meetings. One auxiliary invited prominent townswomen to a panel discussion on legislative matters, and explained the whys and wherefores of their views. When a physician is unable to be active in his county medical society, his wife can compensate by working right at home with information learned at her Auxiliary meeting.

The complex character of the bills which will be introduced in the session of Congress starting in January, 1958, make it imperative that all 5,000 Auxiliary members be completely informed as to the object and complete effect of these measures. The women are just as interested in H.R. 9467, the Forand bill which provides for free hospitalization and surgical care for Social Security beneficiaries, as the men, and they will be ready to act in an intelligent manner when the time comes.

All county presidents, legislative chairmen and program chairmen are being urged to be present at the Symposium on Legislation sponsored by the Council on Medical Jurisprudence on January 18, 1958, in Austin. It is hoped that at least one representative from each local Auxiliary will attend to gain firsthand knowledge, to make personal contact, and to question legislative authorities, and thus develop political acumen to help preserve the private practice of medicine.

—MRS. G. G. ZEDLER, Austin.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

RECENT DEATHS

DR. EUGENE J. IRVINE

Dr. Eugene Judson Irvine, Dallas, Texas, died September 30, 1957, of coronary thrombosis in Dallas.

He was born October 14, 1881, in Garrett, to John Thomas and Nannie D. (Hall) Irvine. He received his preliminary education from Ferris Institute, Ferris. After he was graduated from Louisville Hospital and Medical College in Kentucky in 1908, he remained there for an internship. Dr. Irvine did postgraduate work at Tulane University, New Orleans. He began practice in Hugo, Okla., where he was one of two doctors who made the highest grade to that time in the examination for a state license. In 1910, he moved to Dallas where he continued practicing until his death. He

DR. EUGENE J. IRVINE

served as first lieutenant in the United States Army in World War I.

Dr. Irvine was a member of the Texas Medical Association, American Medical Association, and Dallas County Medical Society.

Dr. Irvine and Miss Jessie Kelley of DeLeon were married in Durant, Okla., on February 22, 1954. Survivors are his wife and two sisters, Mrs. Wilburn Speer and Mrs. G. L. Fetzer, both of Dallas.

DR. ELISHA S. GORDON

Dr. Elisha S. Gordon, Dallas, Texas, died October 4, 1957.

Born in 1877 in Ovilla, Ellis County, he was the son of Elisha and Rebecca (Lancaster) Gordon. He was graduated from the University of Texas School of Pharmacy, then in Galveston, in 1897 and from the old Southwestern University Medical College in 1906. He interned at St. Paul's Hospital, Dallas, and did postgraduate work at the University of Pennsylvania and Harvard University. After his internship, he began practice in Dallas and taught at the old Southwestern University Medical College for a number of years. In 1922, he joined the staff of the Dallas Medical and Surgical Clinic.

He was a member of the Dallas County Medical Society, the American Medical Association, and the Texas Medical Association, of which he was elected an honorary member in 1948. He belonged to the Lakewood Country Club and the Baptist Church.

Dr. Gordon's wife died in 1955. He is survived by two sons, Manley Gordon, Dallas, and James E. Gordon, Waco, and three grandchildren.

DR. D. J. R. YOUNGBLOOD

Dr. Daniel Joel Raymond Youngblood, Breckenridge, Texas, died of arteriosclerosis August 8, 1957, in Fort Worth.

Dr. Youngblood was born September 23, 1870, in Greenville, S. C., son of William F. and Cynthia Ann (McKinney) Youngblood and attended Italy Junior College, Italy, Texas, and Baylor University, Waco, before entering the medical department of the University of the South, Sewanee, Tenn., and later the Physicians and Surgeons College (now Emory University School of Medicine) in Atlanta. He was graduated at Atlanta in 1904 and began his medical practice in Brandon, where he remained 16 years. He moved in 1920 to Breckenridge, where he continued to practice until his retirement in 1955.

He was a member of the Texas and American Medical Associations through the Hill or Eastland-Callahan-Stephens-Shackelford-Throckmorton Counties Medical Society and served as secretary of the latter group from 1933 until 1949. The society unanimously voted a resolution of thanks for his years of service in 1950 when he resigned his duties to become president. He also was a thirty-second degree Mason and a member of the Shrine, the Lions Club, and the Baptist Church.

Dr. Youngblood took postgraduate work in the Chicago Eye, Ear, Nose, and Throat College, Illinois Post Graduate School of Medicine, New York University Post Graduate

DR. D. J. R. YOUNGBLOOD

School of Medicine, and the University of Austria Medical School and Hospital, Vienna.

On May 4, 1925, Miss Hesper Thorton and Dr. Youngblood were married in Atlanta. She survives, as do a son, R. L. Youngblood, Houston; two daughters, Mrs. James Hellinghausen, Dallas, and Mrs. Winton Smith, Greggton; three brothers, J. H. Youngblood, Waco; Cleveland Youngblood, Dallas; and Herman Youngblood, Corsicana; a grandson; and three great grandchildren.

DR. R. N. WALKER

Dr. Robert Nichols Walker, Celina, died of coronary occlusion in a Dallas hospital on August 19, 1957.

Dr. Walker was born October 12, 1878, in Whitewright, and was the son of Asa and Mary (Browning) Walker. He attended Grayson College in Whitewright and was graduated from the University of Louisville School of Medicine, Louisville, Ky., in 1903. He then moved to Celina where he practiced until 1951.

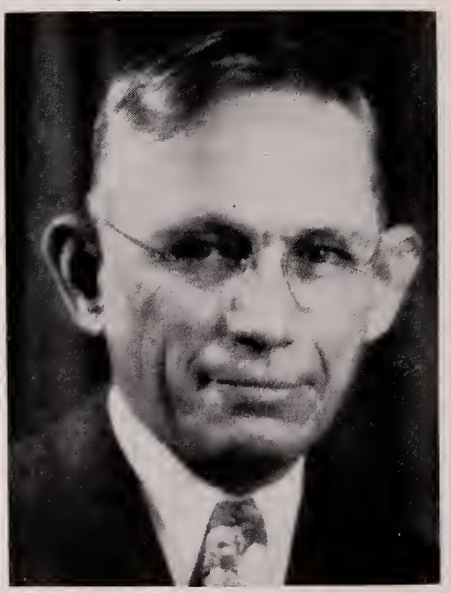
He was a member of the Texas and American Medical Associations through the Collin County Medical Society, and served as elder of the Presbyterian Church in Celina.

Miss Janie Perkins and Dr. Walker were married in 1904 in Celina. She survives, as do his three children, Nolan Walker, Celina, and Mrs. Cecil Sonntag and Mrs. Burnett Cox, both of Dallas.

DR. G. H. SPURLOCK

Dr. George Herschel Spurlock, Houston, Texas, died September 8, 1957, of heart failure at his home.

He was born April 17, 1876, in Spurger, and was the son of Patrick Henry and Eliza Jane (Collier) Spurlock. After attending public schools in Spurger, he was graduated from Memphis Hospital Medical College, Tenn., in 1902 and Tulane University School of Medicine in 1913. He did postgraduate work at Harvard Medical School, in New York, and at the Mayo Clinic. Dr. Spurlock practiced for 3 years in Doucette and 7 years in Kirbyville. He moved to Houston in 1913 and practiced there until his retirement in 1950. During World War I, he was a naval reserve officer with the rank of first lieutenant.



DR. G. H. SPURLOCK

He was a member of the staff of Memorial Hospital, which he served as president for 1 year, and a member of the visiting staffs of Methodist and St. Joseph's Hospitals.

Dr. Spurlock was a member of the Texas and American Medical Associations through the Harris County Medical Society, a fellow of the American College of Surgeons, and a member of the Southern Medical Association and the Southern Obstetrical and Gynecological Association. In 1951, he was elected an honorary member of the Texas Medical Association. He was a Scottish Rite Mason and belonged to the Shrine. He also was a member and former deacon of the South Main Baptist Church and a member of Phi Beta Pi medical fraternity.

Dr. Spurlock was married to Miss Alvah Salter in 1904, in Warren. Survivors include Mrs. Spurlock; two brothers, Dr. B. H. Spurlock, Macon, Ga., and C. S. Spurlock, Hillister; and a sister, Mrs. A. P. Sheffield, Spurger.

DR. A. F. GARNER

Dr. Albert Franklin Garner, who practiced medicine in Grandview, Texas, from 1911 until his retirement 2 years ago, died in Arlington August 17, 1957, of complications from a broken hip.

He was born June 13, 1865, in Newton County, Mo. He attended public schools and a Baptist college in Pierce City, Mo., before entering the Missouri Medical College, St. Louis, from which he was graduated in 1889. He began his practice that year in Missouri, but moved in 1890 to Boonsville, Texas. He also practiced briefly in Springtown, Bridgeport, and Cleburne before settling in 1911 in Grandview.

DR. A. F. GARNER

He was elected to honorary membership in the Texas Medical Association in 1948 after having been a member since 1918 through the Wise or Johnson County Medical Societies. He was city health officer of Grandview for many years, and was resident surgeon for the Missouri-Kansas-Texas Railroad. Dr. Garner also was active in the Baptist Church and was a member of the Masonic Lodge.

He was married July 7, 1892, in Decatur to Miss Janie Dennis, who died March 15, 1957.

Survivors are two sons, Gervais J. Garner, San Antonio, and Floyd M. Garner, Houston, and a brother, Emory L. Garner, Neosho, Mo.

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Indoctrination Program

Although there has been much debate about the merit of a state-level orientation program for new members of the Texas Medical Association and for members who transfer from one county society to another, those who have taken part in the program seem to think it valuable. There will be another opportunity next month to evaluate the program in action.

The second course of indoctrination lectures was given at the headquarters building in Austin in September, when there were 153 registrants—120 of whom attended for credit and 33 as visitors. The replies to a questionnaire sent to the registrants showed that more than 90 per cent thought the lectures were worth while. Many favorable comments and constructive criticisms were made by those who returned the questionnaires. These came from new provisional members as well as older members who were present because they had transferred from one county society to another.

Further experience will show what subjects are the most important to consider, and perhaps it will prove desirable to divide the program so that some topics of special interest to more experienced practitioners will be discussed for transfers simultaneously with other basic topics aimed more specifically at beginning physicians. Certainly every member of the Texas Medical Association should understand the organization, the work and aims of the profession. A young practitioner is bound to be benefited by the orientation lectures. Much information on medical economics, the medicolegal aspects of practice, medical ethics, public relations, workmen's compensation laws, voluntary prepay-

ment health insurance, legislation of medical significance, and other topics has been presented.

The lecture course will be given next in Austin on Saturday, January 18, in conjunction with the Executive Council meeting, a conference of county medical society officials, and a symposium on legislation, all of which will be open to those attending the orientation series. No doubt many will find it more convenient to attend the lectures on Tuesday, April 22, the final day of the 1958 annual session, in Houston.

No one can attend the lectures in Austin and come away without a sense of pride in the profession's beautiful building, its rapidly developing and increasingly useful Library, and the excellent staff that carries on the work of the Association with enthusiasm and efficiency. Likewise, participation in the program during the annual session will provide an opportunity to see the Association in action in its business, social, and scientific aspects such as to bring confidence to the new member and a new realization of what means are his to progress in his chosen profession.

—David W. Carter, Jr., M.D., Dallas.

January Busy Time For Texas Physicians

Every doctor in Texas should find Austin a place of special interest next month. If he is president, president-elect, vice-president, secretary, or delegate of his county medical society; if he is chairman or a member of the legislative committee of his local society; if he is a new or transfer member; or if he is simply a member of a county medical society who is eager to be well informed, he will not want to miss the Conference of County Medical Society Officials and Symposium on Legislation to be presented in conjunction with the Indoctrination Program by the Texas Medical Association January 18 at the headquarters building in Austin. Members of the Woman's Auxiliary also will attend to get information which will help increase the effectiveness of their local units.

Leadership, social security, big government—these are to be covered by noted guest speakers. Kenneth McFarland, Ph.D., educational consultant for General Motors Corporation, Topeka, Kan.; Dr. J. Lafe Ludwig, a member of the Committee on Legislation of the American Medical Association, Los Angeles; and James G. Roberts, manager of the Southwestern Division of the Chamber of Commerce of the United States, Dallas, will have much to offer along these lines.

Members of the Association's official family—officers and committee members—will conduct their business January 18 in preparation for the winter meeting of the Executive Council on Sunday morning, January 19. Any member of the Association is welcome to sit in on the deliberations of the Executive Council, which carries on the Association's business in the fall and winter between meetings of the House of Delegates.

January 7-8 also are important dates for many Texas practitioners. Those physicians whose objective is to improve further the health of the school children of Texas will meet with educators for the second statewide Conference on Physicians and Schools, which is sponsored by the Association's Committee on School-Physician Relationships in cooperation with the Texas Education Agency and the Texas State Department of Health. The conference has been planned to accomplish its purpose through the discussion of means of instituting sound policies and health education in the schools. Fred V. Hein, Ph.D., consultant in health and fitness, Bureau of Health Education, American Medical Association, Chicago, will bring much of interest to those in attendance.

Programs for the Conference of County Medical Society Officials and Symposium on Legis-

lation, Indoctrination Program, and Conference on Physicians and Schools may be found in the Organization Section of this *Journal.*

Advance planning is an important factor for everyone. Mark your calendar now so "you won't be late . . . in '58" for taking advantage of your membership in the Texas Medical Association.

Medical Branch Contributes Symposium

Hats off to the University of Texas Medical Branch for the scientific section of this month's *Journal.* With Dr. Martin Schneider as guest editor for the symposium entitled "Malignant Neoplasms in Children," the six articles in the series represent work in the Departments of Internal Medicine, Neurosurgery, Orthopedic Surgery, Pediatrics, Radiology, and Urology, and the Hematology Research Laboratory of the Medical Branch.

This is the second such symposium offered by the Galveston medical school; the first appeared in the September, 1956, *Journal* and concerned recent developments in neurology and psychiatry. Baylor University College of Medicine, Houston, also has contributed the scientific section for one issue in 1956, and a second symposium is in the process of being completed for use in 1958. Southwestern Medical School, Dallas, has been invited to provide a series of articles for a similar special issue.

Since the three medical schools in Texas provide the centers for scientific advances and research in the state, their manuscripts are a special benefit to *Journal* readers. The *Texas State Journal of Medicine* acknowledges with appreciation the contribution of the original articles in this issue from the University of Texas Medical Branch and particularly wishes to thank Dr. Schneider, who served as coordinator for the series.

Grievance Committees And the By-Laws

It is disappointing that only about 35 per cent of county society secretaries answered the grievance committee questionnaire, the results of which were published in the November issue of this *Journal.* In order to conform to local situations, deviations from the By-Laws of the Texas Medical Association are to be expected; however, the survey indicates that several points need emphasis and clarification in the interest of uniformity and improved function.

Chapter X, Section 18 (a), of the By-Laws requires that "Each component county society shall set up a standing committee to be known as the County Public Grievance Committee" and that "It shall consist of three or more members . . . each with a term of office for three years. . . ." This term of office has been stipulated in order that there will always be at least one experienced member on the committee.

If grievance committees are to serve to improve public relations, then every county society must have a committee, and the public must know of its existence. A lack of complaints does not relieve the county society of this obligation. Publicity must be judicious, or every dissatisfied patient may use the committee as a whipping post for his physician.

This section further states: "This committee shall have the duty of investigating and supervising the ethical deportment of the membership of the component county society for which it serves, shall receive complaints from the general public against members of the society, and shall receive similar complaints and grievances made by members against other members."

When a complaint has been received, the committee should promptly write the complainant that the matter is to be investigated, and the disposition of each case should be reached as quickly as possible. The committee will not assume the authority either to discipline or to release physicians from charges. If

the evidence suggests a breech of medical ethics, the committee is to prosecute charges before the board of censors. For this reason physicians cannot serve on both the committee and the board of censors at the same time.

Such organization may need modification in the very small county societies; and in these counties the Councilor of the district should be consulted for aid and advice in meeting the local problems.

Chapter X, Section 18 (c), states that the committee "shall furnish a written statement in brief of the finding of the committee to both the original complainant and the accused physician." This does not require a lengthy written report, and a brief report is preferable; however, the complainant will be assured that he has had a "fair hearing" only if the committee or one of its members explains the findings orally and in person.

Though the survey indicates that all county societies do not have grievance committees and that certain variations from the By-Laws of the Texas Medical Association exist, one can be encouraged by the progress that has been made during the past 5 years. The public demand upon organized medicine for this service is increasing; and, with the knowledge gained by experience and study, the decisions of these committees will gain more respect and good will for the physicians in the communities which they serve.

—R. M. TENERY, M.D., Waxahachie.

★ Current Editorial Comment

Tribute to William Harvey In 300th Anniversary Year

I am not a person who is wedded to the past; however, June 3, 1957, happens to have been the three hundredth anniversary of the death of William Harvey, the discoverer of the circulation of the blood. The medical profession is so steeped in tradition that it cannot avoid the past. Hippocrates gave the profession the scientific approach, Vesalius anatomy, and William Harvey the physiology of the circulation. The fact that the blood flowed through the blood vessels had been known from antiquity as anyone can see a cut blood vessel bleed, but the fact that the blood flowed in two circles (the lesser or pulmonic circulation and the greater or systemic circulation) remained for William Harvey to discover. His thinking to prove the circulation, although he never demonstrated the arterioles or venules because he did not have a microscope, is undoubtedly the greatest piece of deductive reasoning the world has ever known. Sir Thomas Browne (of "Relegio Medici" fame) remarked that he preferred the discovery of "the circulation of the blood to the discovery of America"!

This year during the month of June the Royal College of Surgeons had a William Harvey Tercentenary Celebration in London which was attended by representatives of 56 nations and at which time a complete review of the present knowledge of the circulation of the blood was presented. Also various tributes were paid to this great discoverer by St. Paul's Cathedral, Canterbury Cathedral, Gray's Inn, Royal College of Physicians, Royal Society of Medicine, Medical Society of London, Harveian Society of London, and many others. There was also a gay Elizabethan dinner at Folkestone, the birthplace of Harvey.

The Royal College of Surgeons justified its celebration of the event (though Harvey belonged to the Royal College of Physicians) since Harvey was known to have worn a dagger which the surgeons said made him a chirurgeon! As would be anticipated, the scientific show was "stolen" by the thoracic surgeons with the extracorporeal circulation of the blood and the "bloodless" operations within the heart as demonstrated by Sir Russel Brock.

What did Harvey receive for his discovery? In the words of Aubrey, "I have heard him say that after his booke of the circulation of the blood came out he fell mightily in his practice,

and 'twas believed by the vulgar that he was crack-brained and all the physicians were against him." Harvey's reply is a classic I think should be remembered, "To return evil speaking with evil speaking I hold to be unworthy of a philosopher and a searcher after truth. I believe I shall do better and more advisedly if I meet so many indications of ill breeding with the light of faithful and conclusive observation." At times, however, Harvey would prove he was human and refer to his colleagues with vulgar names.

Harvey knew of the circulation in 1616, for his notes for the Lumleian lectures of that year are still preserved; however, he waited until 1628 to publish his findings in the famous "De Motu Cordis." He then waited until 1649 to publish anything further on the circulation in his answer to Riolan, the great French anatomist. While admitting the distinction of this antagonist, he proceeded on this particular question utterly to demolish him with clear facts and stern irrefutable arguments. He called upon his opponents to observe the facts and make experiments for themselves instead of citing the opinions of authors centuries old. This idea much later has been attributed to John Hunter but really belongs to Harvey.

Historians have tried to credit the discovery of the circulation to Leonardo da Vinci, Andreas Vesalius, Michael Servetus, Realdo Columbus, Andreas Caesalpinus, and even William Shakespeare. Time has proved, however, that only Harvey, and Harvey alone, experimented, reasoned, thought out, and proved this great discovery. It cannot be taken away from him.

Another evidence that Harvey was human was noted by Aubrey in later years after the death of Harvey's wife, "I remember he kept a pretty young wench to wayte on him, which I guesse he made use of for warmeth-sake as King David did"!

Throughout the centuries Harvey's name has been kept brilliant by the many harveian orations which have fathomed out every aspect of the life of this discoverer. The most well known oration was given by none other than Sir William Osler in 1906 and is entitled "The Growth of Truth." This brilliant oration, as no one but Sir William could write, was reprinted June 1, 1957, in the *British Medical Journal.* I recommend it for reading.

Harvey's love of truth was equaled by his love of nature. "Facts recognizable by the senses," he wrote in his second letter to Riolan, "wait upon no opinions—the works of nature bow to no antiquity: for indeed there is nothing either more ancient or of higher authority than Nature."

"A searcher after truth"; there may be more elaborate epitaphs, but there could not be a nobler one for a man who, though so uncommonly successful in his search, remained always modest and dedicated.

—WILLIAM M. CRAWFORD, M.D., Fort Worth.

Dr. Crawford, 612 Sixth Avenue, Fort Worth.

This department of the JOURNAL *presents editorial comments on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the Texas Medical Association to submit such discussions for this department. The discussions should not be more than 500 words in length.*

Season's Greetings

President's Page

Christmas Prayer

For the President's Page for December I have selected an article written by Dean Clarence E. Manion one year ago. He expresses my thoughts very much better than I can express them. I hope all of you read and reread it.

Dear God, on this anniversary of Your birth as Man, we pray to You for strength. We are still convinced that knowledge of You can be retained in our minds, that worship of You can be perpetuated in our churches, that love of You can be preserved in our hearts.

But, we need Your Divine help today, God. We need it as individuals. We need it as a Nation. We need it so that we may be inspired to avert the doom of the human race.

We are not worthy of Your help. Our national history shows many wrongs, many errors, many acts of ill intent. We cannot ask that these be forgotten or condoned.

We can only plead that our national mistakes have never been coupled with the purpose of removing all knowledge of Your Fatherhood, Your justice, Your mercy from the minds of Your creatures. We can only say that our national sins did not arise out of a satanic desire to stamp out the freedom, hopes and lives of other peoples, other nations.

We know, God, You meant man to be free—free within the scope of Your Commandments and the natural law. When the gates of despotism were slammed against human liberty, you must have hovered over formulation of the Justinian Code of Laws. When again the shackles bound wrists of men, You must have presided at Runnymede when Magna Carta was born. Without Your inspiration and help, certainly there would have been no American Declaration of Independence.

During the hot, despairing days of 1789, You assuredly watched over the group in Philadelphia who certified American freedom with the Constitution of the United States.

This generation prays today for Your Divine help in saving that Constitution. Without it our freedom is lost; our natural right to worship You is lost; our lives are lost—and the black ashes of atheism will cover us as it now hides a billion of Your creatures.

We are beset by enemies without, and weaklings within. A philosophy of stark, heartless materialism is poisoning the souls of our children. Your Blessed Name is being made anathema. You cannot be mentioned in the United Nations, crudely dedicated to "peace," which only You can give.

This is the glorious anniversary of the day when Your majesty and compassion divided all of our recorded time in two—the Blessed Day before and after which all our history is and shall ever be dated.

Give us, therefore, this day and for all our days, the fearlessness of Patrick Henry, when he cried: "Give me liberty, or give me death," the courage of Washington in his dreary hours at Valley Forge, the insight and perseverance of Jefferson, Madison and Franklin when our Republic was made.

Give us, dear God, the vigor and zeal of Lincoln and Lee, who fought on opposite sides, but both for the freedom-saving Constitution.

Our time is short. From out of the lowering darkness we can hear the drums of destruction, their tattoo rising, steadily rising.

We work during these disheartening days, sustained only by the hope that Your help will lead us back to the sunlight that once brightened our lives. Amen.

I wish to take this opportunity to express to each member of Texas Medical Association my sincere thanks for his wonderful support and cooperation thus far this year. I wish for each of you, your families, and your patients a Happy Holiday Season. For the families of those who have answered their last call, I wish the comfort and understanding that only the Great Physician can give. May their lives be an inspiration to all of us, and may their passing remind us all that ere long we too must answer that last call. Meanwhile may we redouble our efforts and rededicate ourselves to the task of giving ever improved medical care to the people of this great state. Let us also rededicate ourselves to the ever increasing task of preserving the freedom which we inherited so we may leave our children a more healthful and a better place in which to live.

Denton Kerr

ORIGINAL ARTICLES

Malignant Neoplasms In Children

A Symposium from The University of Texas Medical Branch

Guest Editor:

MARTIN SCHNEIDER, M.D.

Galveston, Texas

The Problem of Malignancy in the Childhood Period

ARILD E. HANSEN, Ph.D., M.D., and ARR NELL BOELSCHE, M.D.

Galveston, Texas

THE SPECTACULAR increase in longevity in our country is known to everyone. Contributing materially to the increase in life span has been the saving of lives of infants. In former years the excessively high death rates in infants were due in large part to diarrheal diseases. Sometime ago the situation in our country was the same as still exists in some parts of the world today, wherein more than half the babies born alive fail to survive the first year of life. The widespread dissemination of knowledge and the application thereof relative to the proper feeding of infants has led to a marked reduction in deaths from this cause. The conquering of many other diseases, likewise, has led to phenomenal decreases in deaths throughout the childhood period. The specific death rates per 1,000 population in 1950 for diphtheria, for example, were less than one-hundredth that of 1900 according to Vital Statistics of the United States.[4] For tuberculosis the rate has decreased to about one-tenth during the comparable period. The decline in crude death rates for the entire United States per 10,000 population from 1900 to 1954 is illustrated in figure 1. Also shown are similar data for Texas from 1935 to 1954. The crude death rates in the childhood age groups for the United States are given in figure 2. The significance of saving the life of an infant or child and the consequent effect on the longevity of a population are realized only when one considers the saving in the term of "life-years." For example, it does not take much imagination to realize that the life-years of two persons dying at the age of 70 years is twice greater than if one died during the first year of life and the other at 70 years. With the decreasing death rates in infants and children, a paradoxical situation exists concerning the category of disease "cancer and other malignant tumors" in which the death rates are increasing. This fact forcibly brings out the necessity of paying particular attention to the problem of malignancy during the childhood period.

The increasing incidence of malignancy in our country is apparent in figure 1 in which are charted the death rates from malignant tumors for the years 1900 to 1954. Similar data are presented in figure 3 for the various childhood age groups: under 1 year, 1 through 4 years, and 5 through 14 years. Attempts were made to obtain the death rates in these childhood age groups for Texas, but the data are sparse.

Dr. Arild E. Hansen and his coauthor are from the Department of Pediatrics of the University of Texas Medical Branch, Dr. Hansen being chairman.

The death rates for children today are only a small fraction compared to those of the early part of the century. In marked contrast, the death rates in infants and children due to cancer and other malignant tumors have increased. The cancer problem cannot be ignored; its awareness by the medical profession is mandatory as early recognition and adequate treatment may result in saving many life-years.

In fact, the exact increase in the incidence of malignancies is impossible to obtain from the vital statistics records because of the change in classification which occurred in 1948. Neoplastic diseases now include the leukemias, whereas previously they were

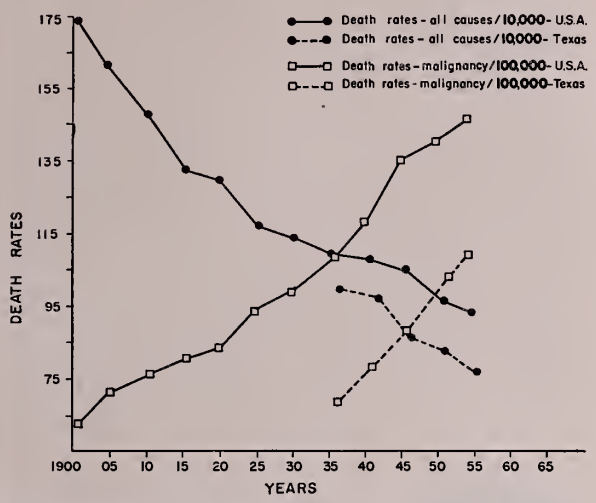

Fig. 1. Death rates from all causes and from malignancy in the United States and in Texas for all ages.

grouped separately. In part, this accounts for the sudden rise in the slope of the curve between the years 1940 and 1950 (fig. 1 and 3). Silverman[3] in 1954 at a conference of cancer pathology and radiology in Houston stated that in 1930, out of every 50 deaths between the age of 1 and 14 years, 1 was caused by cancer, whereas in 1954 it was 1 out of 9. In part this has been because of improved diagnostic methods and facilities, as well as the reduced infant mortality. Nevertheless, aside from these factors, there is still

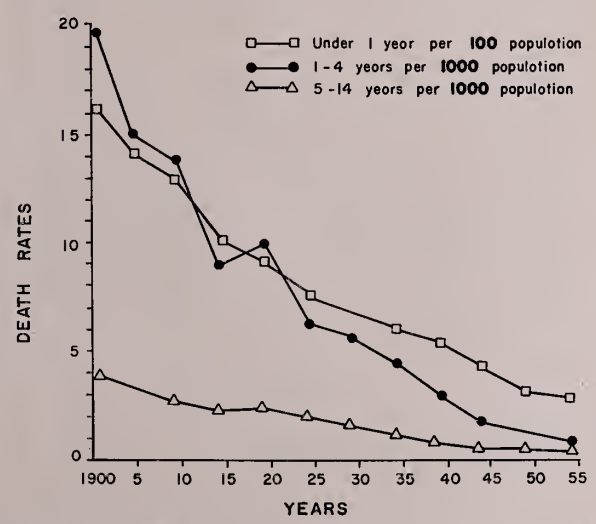

Fig. 2. Crude death rates in the United States for the childhood age groups.

an increased incidence of malignancy as a cause of death in childhood.

It is of some interest that the highest rates of malignancy are in the northern states and the lowest in the southern states. In 1950 there were 69.4 deaths from malignancy per 100,000 population in New Mexico and 179.6 per 100,000 in Massachusetts. Texas during this same year was among the lower group, but had the considerable number of 104.8 per 100,000 population. Considering the total number rather than the rate, in Texas there was a 50 per cent increase in deaths from malignancies from 1945 to 1954.

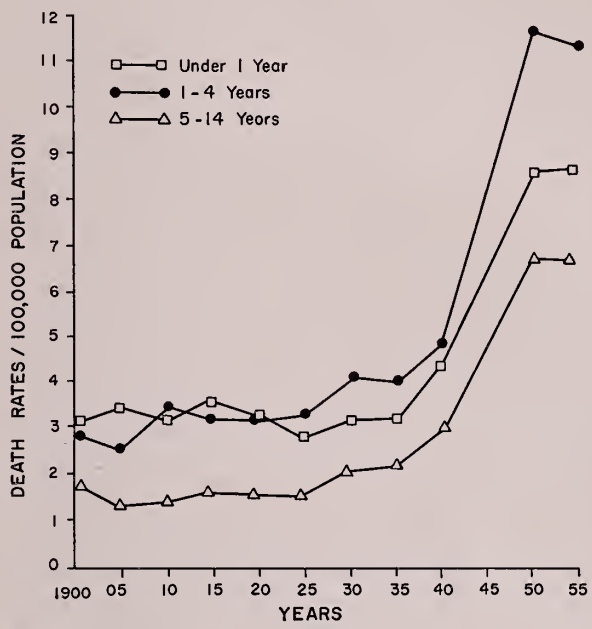

Fig. 3. Death rates from cancer and other malignant tumors in the United States for the childhood period.

Although the fact is not generally appreciated, the age group of 1 to 4 years is a relatively hazardous period for malignancy. This is due to the ocurrence of tumors of embryonic origin such as embryomas of the kidney, neuroblastomas of the adrenal cortex, retinoblastomas, and teratomas. Tumors of the hematopoietic system and of the central nervous system tend to occur with greater frequency in the 4 through 14 year age group.

Anyone familiar with diseases of children in a place such as the University of Texas Hospitals is impressed with the growing significance of the problem of malignancy among children. Sometimes, these patients present typical histories and physical findings, but often the manifestations are so obscure as to cause difficulty in diagnosis. Between 1950 and 1955 more than 250 admissions to the Children's Hospital of the University of Texas were for malignancy of various types.

Tumors may occur in all parts of the body in children, but the commonly involved organ systems dif-

fer from those of adults. The most frequent site of malignant tumors in children quoted from medical center to medical center depends upon the reputation of that clinic. Handy and Goldberg[2] in a series of 599 children during a 3 year period reported the most frequent malignancy to be leukemia; Dargeon[1] found the skeletal system most often involved. At the University of Texas Hospitals central nervous system tumors and leukemias lead the list. In table 1 are summarized the most frequent sites as observed

TABLE 1.—*Relative Frequency of Sites of Malignancy in Children.*

Dargeon[1]	Handy & Goldberg[2]	University of Texas
Skeletal	Hematopoietic	CNS
Kidney & adrenal	CNS	Hematopoietic
Eye & orbit	Kidney & adrenal	Skeletal
Hematopoietic	Lymphosarcomas	Kidney & adrenal

by these various workers. Commonly found are malignancies of the blood forming organs, brain, kidneys and adrenal area, and the skeletal system. However, one must be ever alert to the eye and soft tissues as possible locations for malignant growths.

By no means should an attitude of defeatism prevail when the problem of malignant tumors in children is considered. Longevity and survivalship is increasing for many forms of childhood malignancy with our present method for early diagnosis together with the advances in treatment. Hence, malignancy should be considered in the differential diagnosis of every patient in order to identify the early cases. The error of interpreting a benign lesion as a malignant one may be serious and cause unnecessary heartache and radical treatment. When the least suspicion is aroused, maximum effort should be made to obtain the exact diagnosis promptly in order to alleviate the anxieties of the parents.

For any physician who is responsible for the care of children, it is axiomatic that the possibility of malignancy be kept in mind continuously. A child of 2 years with a malignant tumor diagnosed early and successfully treated may well have a life expectancy of 64 years. The 64 year old adult, again with early diagnosis and successful treatment, may be expected to reach 72 years of age. In other words in the terms of "life-years," there may be an eight fold difference. This point is stressed because greater emphasis should be placed on malignancy as a problem of childhood.

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♦ Dr. Hansen and Dr. Boelsche, Department of Pediatrics, University of Texas Medical Branch, Galveston.

Leukemia In Childhood

MARY ELLEN HAGGARD, M.D., and W. C. LEVIN, M.D.

Galveston, Texas

TO THE PHYSICIAN who concerns himself with the care of children the problem of leukemia is assuming increasing importance. The prevalence of this disorder and the development of specific antileukemic drugs leads to the consideration of this disease in a different light than in previous decades. Leukemia, the most common type of malignancy in childhood,[12] actually appears to be increasing in incidence. How much of the increase in deaths from leukemia is real and how much is a result of reduced childhood mortality from infection, of better diagnostic methods, and of increasing awareness of this disorder is debatable. Sachs and Seeman[16] have shown, nonetheless, that in the years 1931 to 1940 there was a 75 per cent increase in the mortality from leukemia in the birth to 1 year age group, a 55 per cent increase in the 1 to 4 year age group, and a 46 per cent increase in the 5 to 14 year group. In view of these observations it is apparent that unwelcome as the problem of the leukemic child may be, this critical situation must be faced by all who undertake the medical care of children.

Dr. Mary Ellen Haggard and her co-author are from the Departments of Pediatrics and Internal Medicine, respectively, and the Hematology Research Laboratory, University of Texas Medical Branch.

The problem of leukemia is assuming increasing importance in the care of children, in whom the condition appears to be increasing in incidence. Leukemia is the most common type of malignancy in childhood. Although only temporary prolongation of life with blood transfusion, antibiotics, and antileukemic therapy can be offered now, it is reasonable to hope for an agent that will eradicate the disease.

ETIOLOGICAL FACTORS

Much evidence has accumulated to suggest etiological factors for this disorder, but the cause of leukemia remains unknown. The hereditary aspect

of this condition is emphasized by reports of its occurrence in each of several sets of twins[2, 6] and in as many as 5 of 8 siblings.[1] At least 25 cases of congenital leukemia have been reported, many of them with other congenital defects, such as mongolism and cardiac anomalies.[4, 13, 14, 15] In mouse and fowl leukemia there is much evidence to support the concept of viral etiology,[10, 17] and it is tempting in childhood leukemia to link the early symptoms of the disease with the rather common history of antecedent infection. Etiological relationships, however, remain unproven. The high incidence of leukemia among the atomic bomb survivors, among children who have had radiation to their thymus glands in infancy, and among radiologists has resulted in much speculation concerning irradiation as a leukemogenic agent. Again, however, with the data presently available, proof that irradiation is the cause of leukemia is lacking. It is possible, of course, that one or more of these factors may contribute to the development of leukemia in a given individual.

DIAGNOSTIC FEATURES

Even with early diagnosis and modern drug therapy, leukemia remains a fatal disease. Greatest palliation is achieved if treatment is begun early so that it may have adequate time to produce beneficial effects. "Early diagnosis" is possible only if one is keenly aware of the possibility of the disorder. The child with pallor, petechiae, ecchymoses, fever, lymphadenopathy, and hepatosplenomegaly, immediately suggests the possibility of leukemia. His clinical findings reflect the underlying pathological process —infiltration and replacement of normal tissues in the reticuloendothelial system and bone marrow by leukemic cells. Thus, with a decrease in erythrocyte precursors in the marrow, and usually with decreased survival of circulating erythrocytes, anemia develops. This in turn is responsible for symptoms of pallor, easy fatigability, and exertional dyspnea. The decrease in megakaryocytes in the bone marrow leads to platelet deficiency and consequently a hemorrhagic tendency. The absence of normal leukocytes results in a lowering of body defenses against infection. Hence, ulcerations of the mucous membranes, cellulitis, and septicemia may become a part of the clinical picture.

Often, however, most of all of these features may be lacking. The symptomatology may be quite nonspecific, and one can neither exclude nor establish the diagnosis on clinical grounds alone. Early in the course of the disease leukemic infiltration may involve predominantly bones and synovial membranes with the resulting clinical picture most suggestive of rheumatic fever or of rheumatoid arthritis. We have observed 2 children treated for periods of 8 and 12 months with steroid hormones for a "rheumatoid arthritis" who later demonstrated clinical and hematological signs of unequivocal leukemia. More rarely, a child with leukemia first may present a clinical picture simulating meningitis.

Only on the basis of unequivocal laboratory evidence can the diagnosis of leukemia be made. Usually abnormalities consisting of leukemic cells, thrombocytopenia, and anemia are apparent in the peripheral blood. Often, however, certain features of the peripheral blood together with clinical manifestations may lead to confusion with other conditions. Acute lymphocytosis, infectious mononucleosis, and pertussis each may produce marked lymphocytosis. The morphological characteristics of the Downey type lymphocyte and a positive heterophil test will help to differentiate infectious mononucleosis. In acute lymphocytosis and pertussis the lymphocytes are morphologically normal in contrast to the leukemic lymphocyte.

The total leukocyte value in acute leukemia of childhood is frequently normal or decreased. In such a situation it may become difficult to distinguish leukemia from acute thrombocytopenic purpura, from a lymphoma, or from reticuloendotheliosis. The anemia, leukopenia, and thrombocytopenia often will suggest a diagnosis of aplastic anemia. This diagnosis also may be considered if aspiration of the marrow is difficult and unproductive of marrow particles. Diagnostic confirmation of leukemia is dependent upon adequate bone marrow examination by a competent hematologist. Replacement of normal marrow elements by the very immature blast forms of leukemia establishes the diagnosis. On the basis of the cell type involved a cytological classification of leukemia may be made. Of the 117 cases of childhood leukemia observed at the University of Texas Medical Branch since 1940 (table 1) approximately 95 per cent are acute. Lymphocytic leukemia is the most common variety comprising 75.7 per cent of this series, while myelocytic leukemia is responsible for 15.4 per cent of the cases and monocytic leukemia for 3.6 per cent. This is in general agreement with previous observations of Cooke,[3] Tivey,[18] and Pierce.[15]

TABLE 1.—*Childhood Leukemia, University of Texas Medical Branch, 1940-1957.*

Type		No. Cases
Lymphocytic		84
Acute	83	
Subacute	1	
Monocytic		4
Acute	4	
Myelocytic		18
Acute	12	
Chronic	6	
Undifferentiated		1
Total		107

TREATMENT

Having established the diagnosis of leukemia, the physician has the responsibility of discussing both the nature and the ultimate prognosis of the disease with the child's parents. As with any fatal disease it is impossible to be optimistic. Nonetheless, recent advances in therapy have removed the making of the diagnosis of leukemia from the realm of a mere academic exercise. One may be encouraged by the fact that there are now available antileukemic drugs which when used judiciously enable many children to enjoy periods of complete comfort for intervals of months or even years. Furthermore, it is reasonable to speculate that additional more effective agents for the control of this disease may be forthcoming in the foreseeable future.

The management of the child with leukemia includes the judicious use of blood transfusion to maintain a satisfactory hemoglobin level, antimicrobial therapy to prevent and combat the ever threatening complication of infection, and appropriate antileukemic agents to induce and maintain hematologic and clinical remissions. A no less important facet of treatment is the psychological support which the physician must give to the patient and his family during an inevitably fatal illness which with drug therapy may follow a lengthy course.

Since the introduction of potassium aresenite by Fowler in 1860 for this purpose, many drugs have been used in the treatment of leukemia. In the following discussion, however, only the more commonly used and effective agents will be mentioned (tables 2 and 3).

Chronic leukemia in childhood accounts for only about 5 per cent of our cases. To our knowledge, all reported cases have been of the granulocytic type. In older children the disease follows much the same course as in adults. In infants, however, chronic myelocytic leukemia is of shorter duration and commonly exhibits thrombocytopenia, rather than the more characteristic thrombocythemia seen in adult granulocytic leukemia.[11] In figure 1 is depicted a typical case of granulocytic leukemia. During the course of her illness, this patient received the three most commonly employed forms of therapy, that is, radioactive phosphorus, roentgen-ray therapy to the spleen, and Myleran (table 2). The total duration

TABLE 2.—*Therapeutic Agents Used in Chronic Granulocytic Leukemia.*

Agent	Initial Dose	Maintenance Dose	Current Status
Myleran (1:4-dimethane-sulfonoxybutane) 2 mg. scored tablets, Burroughs Wellcome	0.6 mg./kg./day[19] (6-8 mg.) P. O.	2 mg./wk. to 4 mg./day	Remission in 2-8 wk. May be given P. O. Few side effects, economical.
Irradiation P_{32}[7]	*0.1 millicurie/kg. in fractionated doses I. V.	. . . .	As effective as Myleran. Should be given I. V. Few side effects.
X-ray locally to spleen	*100-200 r in air in divided doses	. . . .	Expensive, but equally effective.
Purinethol (6-mercaptopurine) 50 mg. scored tablets, Burroughs Wellcome	2.5-5 mg./kg./day	2.5 mg./kg./day	Not as effective as Myleran. Has had little use.[11, 20]

*The smallest possible dose which will produce a remission should be used.

TABLE 3.—*Therapeutic Agents for Acute Leukemia.*

Agent	Initial Dose	Maintenance Dose	Current Status
Hormones			
Prednisone	15-100 mg. daily P. O.	Short intervals of therapy desirable	Remission in 1-3 wk. in about 60% of cases. Especially valuable in the critically ill who have bleeding and high fever.
ACTH	60-100 units I. M. daily	Short intervals of therapy desirable	Similar to prednisone, perhaps slightly more effective.
Antimetabolites			
Purinethol	(see table 2)	Optional, probably preferable	Remission in 3-8 wk. in 30-65% of cases. Remission said to be of longer duration than with hormonal therapy.
Methotrexate (4 Amino-N^{10}-methyl-pteroyl-glutamic acid) Amethopterin, Lederle, 2.5 mg. tablets	1.25-5 mg. daily P. O.	Optional, probably preferable 1.25-5 mg. daily, or at longer intervals	Remission in 3-8 wk. in 30-68% of cases and said to be of longer duration than with hormonal therapy.

of her illness was 32 months, slightly more than the average period of survival reported by Turesson.[19] It may be noted that although a satisfactory remission of several months was achieved with Myleran, the level of thrombocytes ultimately returned to a level greater than 1,000,000 per cubic millimeter of blood. It was because of symptoms referable to the high platelet count that the second course of radioactive phosphorus was given. An apparent hematological remission was achieved, but the patient died at home a few weeks later. Details of her death are not known.

The acute leukemias of childhood, in addition to being the more common, differ from the chronic disease in that untreated they follow a much shorter course and in that morphologically abnormal blast forms almost completely replace normal cellular elements of the bone marrow. Hence, according to cytological characteristics, a child may have acute lymphocytic, acute myelocytic, or acute monocytic leukemia. Occasionally, the cell type may be so anaplastic as to defy more specific identification than "stem cell" leukemia.

Although spontaneous remissions in acute cases have been reported, the median survival of untreated cases is usually given as 2 to 4 months.[18] Between 1940 and 1950 some 28 children with acute leukemia were followed throughout the course of their illness at the University of Texas Medical Branch. They received no specific antileukemic therapy. The average duration of illness was 13 weeks. This is in contrast to the 25 children with acute leukemia the course of whose illness has been followed since 1953 when all three of the major antileukemic agents (table 3) became available. This group of children has an average survival time of 41 weeks, with a range of 3 weeks to 2½ years. In a similar group, Burchenal[3] has reported a median survival time of 12 months and Pierce[15] an average duration of 43 weeks. It readily becomes apparent that although every child with acute leukemia will not respond to therapy, many children will experience remissions when given specific antileukemic agents (table 3) and hence will enjoy definite prolongation of life expectancy.

The use of any therapeutic agent depends upon the type of leukemia and the experience of the physician, as well as upon frequent periodic hematological and clinical evaluation of the child. Today a battery of drugs are available which include in addition to the more effective ones listed in tables 2 and 3, other alkylating agents such as p-carboxyl propylphenylbis (beta chloroethyl) amine (Leukeran, CB 1348), triethylenemelamine (TEM), triethylenethiophosphoramine (thioTEPA), and other folic acid antagonists, such as aminopterin. At the University of Texas Medical Branch, greatest success thus far has been achieved with those listed in tables 2 and 3.

Acute leukemia of childhood, particularly the more common lymphocytic variety, appears to respond best to steroid hormones, 6-mercatopurine, and folic acid

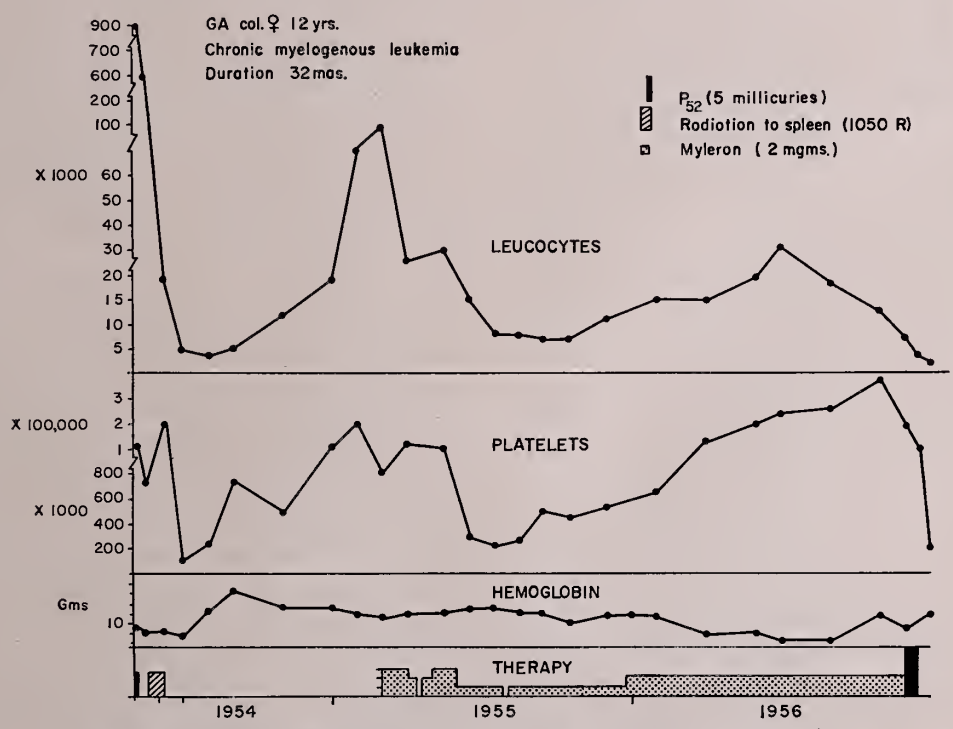

Fig. 1. Remissions due to irradiation of spleen, Myleran, and radioactive phosphorus in a Negro female with chronic myelogenous leukemia.

antagonists such as amethopterin used sequentially or in combination. With these agents, remissions may be obtained which will make it impossible clinically and hematologically to distinguish the child with leukemia from his healthy colleagues. Such a remission has been defined by the Clinical Panel of the Cancer Chemotherapeutic National Service Center as complete remission, that is, an absence of clinical signs and symptoms referable to the disease and findings in the blood and bone marrow within normal limits for the age of the child. In the marrow there should be no cells identifiable as leukemic cells; blasts should be less than 10 per cent and lymphocytes less than 20 per cent. Lesser degrees of improvement may occur, and some children will respond to none of the antileukemic agents. Although there is no cross resistance between the drugs, second remissions with any specific agent are more difficult to produce and tend to be of shorter duration. Since the hazards of therapy are many (table 4) and relapse of the leukemic state is inevitable, repeated and accurately performed clinical and laboratory evaluation of the child is essential.

Among the first of antileukemic agents were the folic acid analogues introduced for acute leukemia by Farber and Subbarow in 1948. These substances act by interfering with the conversion of folic acid to folinic acid, a step necessary for the biosynthesis of nucleic acids. The relatively greater effect exerted by the folic acid antagonists on the leukemic cells in contrast to normal ones is probably due to the greater requirement of the abnormal cells for folinic acid or citrovorum factor. Folinic acid (Leukovorin) is a useful antidote against the manifestations of toxicity of the anti-folic acid drugs. To neutralize the action of aminopterin or amethopterin folinic acid must be administered within an hour after the antileukemic agent. Used in this fashion, however, citrovorum factor counteracts the antileukemic effect of the folic acid analogues as well as the toxic manifestations.

TABLE 4.—*Hazards of Antileukemic Agents.*

Agent	Manifestations of Toxicity
Adrenocortical and adrenocorticotropic hormones[9]	Electrolyte disturbance Hypertensive encephalopathy Diabetes mellitus Predisposition to severe infection: bacterial, candidiasis, and herpetic Osteoporesis and pathological fractures Convulsions Hypoadrenia on withdrawal of drug Emotional reactions Gastrointestinal disturbances, e.g. peptic ulcer, peritonitis Thrombo-embolism
Antimetabolites Purinethol	Bone marrow depression with excessive dosage Rarely: mouth lesions, nausea, diarrhea, jaundice
Methotrexate	Ulcerations of oral mucosa Ulcerations of gastrointestinal tract with diarrhea, melena, and possibly perforation Alopecia, skin eruptions Bone marrow depression with excessive dosage
Myleran	Bone marrow depression with excessive dosage, rarely amenorrhea
Irradiation	Bone marrow depression with excessive dosage Nausea, vomiting, diarrhea

The next chronological development was the introduction of adrenocorticotropic (ACTH) and adrenocortical (cortisone, hydrocortisone, prednisone) hormones. The use of these hormones in the treatment of leukemia was a natural sequence to the observations of Dougherty and White[8] concerning their lymphopenic properties. Hormonal therapy has the advantage of producing remissions quickly (figure 2) and in a slightly higher percentage of cases (table 3) than do the antimetabolites. Remissions are said to be of shorter duration, however, and continuous use of hormones results in the development of Cushing syndrome and many associated complications[9] (table 4). At the University of Texas Medical Branch Hospitals a series of 33 children with acute leukemia have been given hormones in large doses. Diabetes mellitus developed in 3, duodenal ulcer in 1, mental depression in 1, generalized herpes in 1, hypertension in 7, and severe osteoporosis in 5. Because of the tendency to undesirable side effects, children receiving steroid therapy are given large doses of ascorbic acid; a high protein, low salt, and low calorie diet; potassium supplement to combat electrolyte imbalance; and antibiotics to protect against infection. It is considered preferable to reserve steroids for those children severely ill with hemorrhagic and systemic manifestations of their disease, while the more slowly acting antimetabolites are employed in cases where symptoms are milder.

A third type of antileukemic agent was first employed clinically by Burchenal and co-workers.[3] The mechanism of action of the antimetabolite, 6-mercaptopurine (Purinethol), remains incompletely understood. Since it appears to interfere with the synthesis of the nucleic acids by a means differing from that of the folic acid antagonists, however, each of the two agents may be effective when resistance to the other has developed. Figure 3 shows data from a child who was maintained in good hematological remission for 12 months with 6-mercaptopurine. Steroid therapy was given only because of fever and increasing lymphadenopathy before complete remission with 6-mercaptopurine was achieved, and the hormone was withdrawn once remission with the antimetabolite was complete. Maintenance therapy with Purinethol is usually continued throughout the

remission. As with all other antileukemic agents, periodic clinical and hematological evaluation must be carried out to recognize early bone marrow depression by the antileukemic agent or relapse from the leukemic state.

One other adjuvant to leukemia therapy is available. Although there is at present no indication for the use of radiation therapy alone in acute leukemia, used judiciously it may provide relief in the presence of symptoms due to involvement of the skeletal and the nervous systems. Pain due to isolated bone lesions may be relieved by small doses of local irradiation. Antimetabolites appear to pass the meningeal barrier very poorly; hence, even in the face of hematological remissions with these drugs, symptoms due to leukemic infiltrations of the central nervous system may result. These may improve following radiation to the skull, in a dose of 50 r daily for 5 to 10 days.

SUMMARY

Having made the tragic diagnosis of childhood leukemia, the physician may offer to the patient and his parents only temporary prolongation of life with blood transfusion, antibiotics, and antileukemic therapy. If this were all that could be offered, the value of such management might be questioned. With the attention of so many scientists being devoted to research in the field of leukemia therapy, however, it is reasonable to hope that within the lifetime of one of our patients there will be found a more potent and specific agent which has the capacity not merely to prolong the course of the disease but to eradicate it as well.

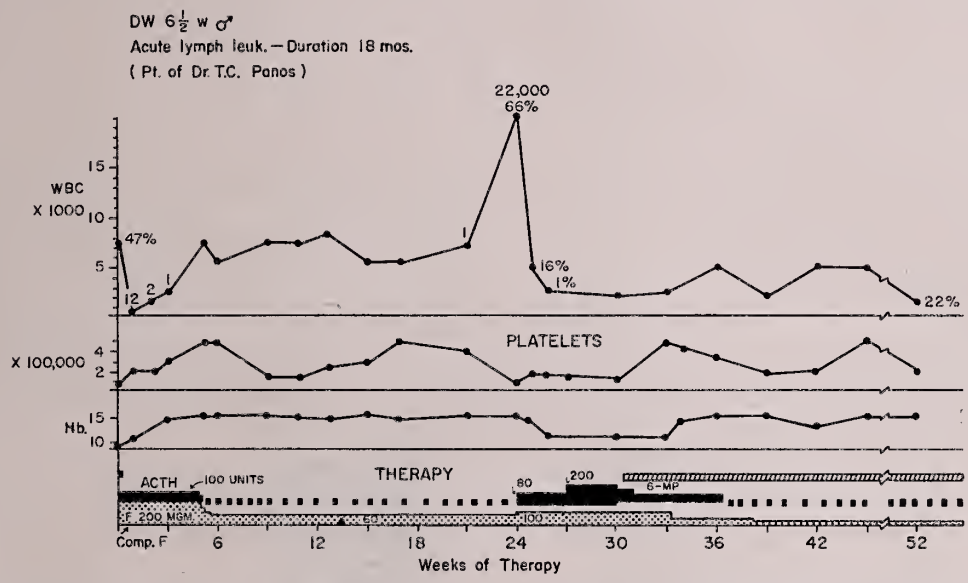

Fig. 2. Remission of 21 weeks due to steroid therapy and a second remission of 25 weeks following addition of Purinethol in a child with acute lymphocytic leukemia. (Along the line representing leukocyte count are numbers indicating the percentage of lymphoblasts in the peripheral blood.)

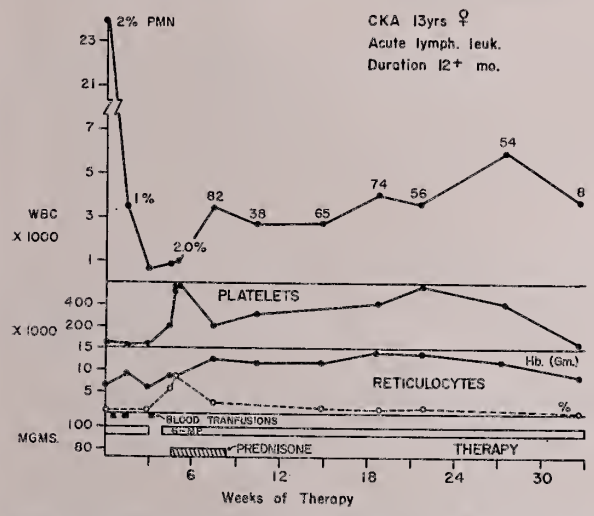

Fig. 3. Remission due to 6-mercaptopurine in a child with acute lymphocytic leukemia. Prednisone was given briefly for fever and increasing lymphadenopathy due to leukemia.

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Life Insurance Fund Supports Research

The Life Insurance Medical Research Fund contributed $910,000 to heart research for the year 1956-1957 and allocated $1,061,357 to continue this work the next year. This is the first time such contributions have exceeded the $1,000,000 mark, Dr. Francis R. Dieuaide, scientific director of the fund, states.

Research on hypothalamic control of sodium excretion conducted by John C. Porter, Ph.D., at University of Texas Southwestern Medical School, Dallas, and on functional distension of the kidneys by H. G. Swann, Ph.D., University of Texas Medical Branch, Galveston, were included in the 1956-1957 project supported by the fund, which is sponsored by 148 life insurance companies in the United States and Canada.

Travelers Carry Smallpox

Smallpox was brought into 18 countries last year by international travelers and 8 of these suffered epidemics of the disease, according to the World Health Organization Committee on International Quarantine.

Potent vaccines as well as correct vaccination procedures should be used, said the committee at a recent Geneva meeting. The committee also stressed the need for personnel coming in contact with travelers to maintain a high level of immunity against smallpox by repeated vaccination. The WHO experts drew attention to the advantages of dried smallpox vaccine for mass campaigns. They said that this vaccine was easily transportable and would remain effective without refrigeration.

Primary Intracranial Neoplasms Of Infancy And Childhood

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ALTHOUGH the years show a continuing improvement in the recognition of intracranial neoplasms, the frequency of primary intracranial neoplasms in infancy and childhood is not generally appreciated. Although many factors are involved, perhaps foremost of these is our inclination to look upon neoplastic disease as being largely limited to middle-aged and elderly persons. In a series of 513 patients

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Approximately one-sixth of intracranial neoplasms occur in infants and children. Cerebellar astrocytoma and medulloblastoma, and glioma of the brain stem are the most common. Ophthalmoscopic as well as neurologic examination is indicated when intracranial tumor is suspected, and roentgenograms of the skull may be helpful. Surgical exploration is indicated unless the tumor is definitely in the brain stem.

with histologically verified primary intracranial neoplasms admitted to John Sealy Hospital, Galveston, 84 or 16 per cent were less than 15 years old.[4] Cushing estimated that one-sixth of intracranial neoplasms occurred in patients younger than 16 years.[2] In our series intracranial neoplasms were equally frequent in white and Negro children.

Primary intracranial neoplasms of children, as those of adults, comprise a varied group histologically. Taken as a group they are somewhat less favorable than tumors of adults on account of the virtual absence of some types of favorable neoplasms frequently encountered in adults. Gliomas, neoplasms arising

from the supporting cells of the nervous system, made up approximately 90 per cent of the 84 tumors of children in our series. The gliomas most frequently encountered were astrocytomas, of which there were 40 (45 per cent), and there were 22 medulloblastomas (26 per cent) in the series. As in adults, tumors of children show the predilection of certain histologic types for certain anatomic sites; furthermore, there is a relationship between the type of tumor, its clinical course, and prognosis.

In a general way, the clinical features of intracranial neoplasms in children resemble those in adults. The differences depend chiefly upon the fact that in adults cerebral neoplasms are three times as common as neoplasms elsewhere intracranially, while in children two-thirds of the neoplasms occur in the cerebellum or brain stem. The incidence of convulsive attacks in children with brain tumor is therefore much lower than in adults; convulsions may be prominent, however, when the tumor is in the cerebrum. In children with brain tumor, nausea, vomiting, dizziness, and disturbances of coordination and gait are present in a high proportion of patients. On account of the tendency of neoplasms arising in the cerebellum to obstruct the outflow of fluid from the ventricular system, increased intracranial pressure is more frequently seen early in children than in adults. If the child be young, the cranial sutures may be separated readily by increased intracranial pressure. Frequently in infants enlargement of the head is the predominant feature in brain tumor; the diagnosis of hydrocephalus must be made with caution when enlargement of the head begins during the second 6 months of life. Percussion of the head to elicit the characteristic "cracked-pot" sound (Macewan's sign) which depends upon the separation of cranial sutures should not be forgotten in the examination of children. It is hoped that a discussion of the three most common types of neoplasms in our series will emphasize their characteristics and make their recognition easier.

ASTROCYTOMA OF CEREBELLUM

Astrocytomas of the cerebellum made up the largest group in our series. Astrocytomas are so named because microscopically their predominant cells closely resemble the astrocytes of the brain.[1] These cells are mature, highly differentiated, and slow growing, and respond little, if at all, to radiation therapy. In most series astrocytomas occur in children averaging more than 10 years old.[3] Although astrocytomas occur in the cerebral hemispheres, in children they usually arise in or near the midline of the cerebellum. Here the tumor grows slowly, tends to remain circumscribed, and is often associated with a cyst of large size. Often the solid portion of the tumor is a relatively small nodule in the cyst wall. Complete gross removal of the solid portion of a cerebellar astrocytoma is usually possible, and recurrence rarely takes place. A long period of well-being may follow partial removal of these lesions. At times secondary operation undertaken when signs of recurrence appear may then accomplish complete removal of the tumor. The operative mortality in this group of tumors has been low.

This group comprises one of the most favorable groups of brain tumors, both from the standpoint of surgical cure and the patient's ability to lead a normal life postoperatively. Unfortunately, in some patients, the otherwise good result is marred by the fact that blindness is present on account of delayed diagnosis and treatment. Because vision lost on account of increased intracranial pressure does not return with subsequent reduction of pressure, early diagnosis of these lesions is imperative.

In patients with astrocytoma the history of symptoms usually extends over more than 6 months and often exceeds a year. Usually the earliest symptoms are attacks of headache associated with nausea and vomiting. These attacks at first may not recur for considerable periods, but generally they come with increasing frequency and severity. The headache is aggravated by physical activity. Although there is a tendency for the headache to be generalized, often it is chiefly in the back of the head and neck. The headache is particularly likely to be present upon awakening and to disappear within a few minutes to a few hours. Vomiting often occurs at the height of the headache; almost always nausea precedes vomiting and there is no relationship to the taking of food. There may be a rapid lessening in the patient's complaints after vomiting, and it is not uncommon for him to ask for food within a half hour of vomiting. Often even when the patient feels well it is noted that he is clumsy and there is a tendency to stagger.

Examination of these patients often shows surprisingly little abnormality. As a rule their nutritional state is good and they are quiet and cooperative. The "cracked-pot" sound is usually present upon percussion of the head. When headache exists at the time of examination, nuchal rigidity and tenderness are usually present. Papilledema is usually present. The gait is with a wide base and the Romberg test positive. Roentgenograms of the skull show evidence of increased intracranial pressure, and suture separation is almost always present. Although the diagnosis of cerebellar tumor usually may be made from the history and neurological findings, it has been our practice to make a ventriculogram upon these patients. Ventriculography almost invariably shows a rather marked dilatation of the ventricular system caused by the obstruction by the tumor. Furthermore, the aqueduct of Sylvius is usually sharply kinked

anteriorly a short distance caudal to its origin. At times the fourth ventricle is visualized and is seen to be displaced away from the tumor. Suboccipital craniectomy should be made the day of ventriculography as operation will relieve the obstruction and the mortality and morbidity will be less than with a delayed operation.

CASE 1.—An 11 year old white boy was admitted to the hospital complaining of headache, vomiting, and dizziness. This boy's head had always been large for his age, and 2 years earlier he could not wear his father's hat. He had complained of headache at school for an undetermined period. Attacks of severe pain in the back of the neck and head associated with vomiting began in January, 1942. These were attributed to a fall from a horse a week earlier. Attacks of headache occurred at intervals of every 2 or 3 weeks. Six months before admission it was noted he walked unsteadily, and later he could not stoop forward without falling. Five weeks before hospitalization he had quit school as he saw double and words on the page "went together."

Examination showed a listless, well developed, and well nourished boy. His head was obviously large and measured 23.5 inches (58.7 cm.) in circumference. Macewan's sign was present. There was bilateral papilledema, and visual acuity was 20/40 bilaterally. There was ataxia in the use of the upper and lower extremities; the gait was unsteady, and there was a tendency to fall to the right. There was a right-sided Babinski response; the deep reflexes were hyperactive, more so on the right. Roentgenograms of the skull confirmed the cranial suture separation.

Ventriculography showed tremendous ventricular dilatation with anterior angulation of the cerebral aqueduct. Craniotomy exposed a very large cystic neoplasm in the cerebellar vermis; the tumor was readily removed.

After return home this boy discontinued school chiefly on account of poor vision. Thirteen years after operation he had no other symptoms referable to his hospitalization for brain tumor.

MEDULLOBLASTOMA OF CEREBELLUM

Medulloblastoma of the cerebellum was the second most frequently encountered tumor in our series. These occur in younger children than do astrocytomas (in most series the average age is approximately 4 years), and are twice as frequent in males.[3] Medulloblastomas are comprised of small cells with chromatic nuclei which resemble undifferentiated cells in the developing nervous system.[1] These cells have the potentiality to develop into either glial cells or neurons. Medulloblastomas arise in the roof of the fourth ventricle; their growth early obstructs this cavity. Fragments of the neoplasm frequently break off, floating in the spinal fluid to implant and grow in secondary locations in the subarachnoid space. Implants are most common in the lumbar region where they produce severe pain in the back and lower extremities. Although occasionally complete gross removal of medulloblastomas may be accomplished, recurrence always takes place. Medulloblastomas are more sensitive to radiation than any other brain tumor. Radiation usually considerably prolongs the survival of these patients although the average postoperative length of life in our series is only 25 months. The operative mortality in this group of tumors was the highest encountered in our series; 40 per cent were dead within 2 months of operation.

Often the clinical picture in patients with medulloblastomas closely resembles that of patients with astrocytoma. The preoperative duration of symptoms, however, is usually less than 6 months; the symptoms are less intermittent; vomiting and weakness are prominent with a noticeable loss of weight and

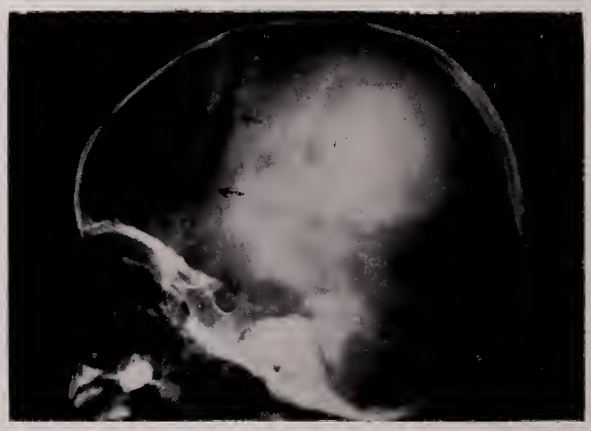

Fig. 1. Lateral film of a skull showing separation of the coronal suture. Separation of the lambdoid suture is also perceptible.

strength; often the patient is bedfast. Papilledema is usually present; nystagmus is also frequent; and the gait is noticeably unsteady. Roentgenograms of the skull show suture separation in the majority of patients. In this group of patients, as in most patients with brain tumor, we have performed ventriculography preliminary to operation upon the tumor. With medulloblastoma ventriculography shows considerable dilatation of the ventricular system, but this is generally less in degree than in astrocytoma. The fourth ventricle is usually visualized, and the tumor appears as a mass filling its caudal portion.

As a rule operation is limited to the removal of a sufficient quantity of the neoplasm to relieve the obstruction of the fourth ventricle. As soon as wound healing permits, roentgen therapy is given to the cerebellum, and in order to control the growth of any implants which may have occurred, the entire subarachnoid space is radiated. With such management most of these children have a symptomatic return to normal for a year or more. With the return of symptoms radiation is repeated but a much less notable improvement follows.

CASE 2.—A 4 year old boy was admitted to the hospital on account of attacks of headache, nausea, and vomiting which began 6 weeks earlier. Headache had been present almost every morning when he awakened, and he had vom-

ited several times weekly. Headache had become more severe, and he had become weak and unsteady with a tendency to deviate to the right. There was clumsiness in the use of the hands, worse on the left.

Examination showed a moderately dehydrated, poorly nourished, listless but uncooperative boy. There was a positive Macewan's sign, and the neck was somewhat rigid. There was bilateral papilledema, and lateral nystagmus was present. There was moderate ataxia in the use of the upper and lower extremities. There was marked hypotonia, and except for the ankle jerks the deep reflexes were not obtained.

Roentgenograms of the skull confirmed cranial suture separation. A ventriculogram showed moderate ventricular dilatation; a filling defect produced by the tumor was seen in the fourth ventricle.

At craniotomy a granular grayish-brown neoplasm was found projecting from the fourth ventricle. A sufficient portion of the tumor was removed to relieve the ventricular obstruction. Two weeks postoperatively radiation to the cerebellum and subarachnoid space was begun. Three weeks after operation rapid improvement started. Three months after operation there were no complaints, but the suboccipital region was somewhat full. Nystagmus was still present. Although the Romberg test was positive, the patient's physical activities were approximately normal.

Sixteen months after operation headache, vomiting, and unsteadiness reappeared; roentgen therapy was resumed. Two months later there was left facial weakness; soon thereafter numbness of the left side of the face was noted along with left-sided deafness. Two years after operation the patient was vomiting frequently, suffering with headache, and unable to sit up or carry on any activity. He died 25 months after operation.

GLIOMA OF BRAIN STEM

Glioma of the brain stem has been encountered with greater frequency than our statistics indicate. This type of tumor is not suitable for or accessible to surgical attack; consequently, the majority of these patients die outside the hospital so that histologic verification of the neoplasm is rarely accomplished. It has been estimated that these tumors comprise 15 to 20 per cent of all intracranial neoplasms in childhood. Although these neoplasms vary somewhat histologically, they are usually composed of mature highly differentiated glial cells. These infiltrate among the fiber tracts allowing the function of these engulfed pathways to continue for considerable periods.

The earliest and most prominent symptoms are disturbances of eye movements and hemiparesis. Unsteadiness is often prominent on account of interference with the efferent cerebellar pathways. Vomiting is likewise frequent and is more often of a projectile character than with other types of brain tumor. As a rule headache is a relatively late development in patients with tumors of the brain stem, and papilledema and suture separation is rarely seen. On account of the lack of symptoms or signs of intracranial pressure these patients are not infrequently thought to be suffering from poliomyelitis, encephalitis, or some other postinfectious complication. In recent years we usually have confirmed the clinical diagnosis in these patients by pneumoencephalography or, if papilledema is present, by ventriculography. When the aqueduct and fourth ventricle are not unequivocally visualized, we have introduced a small quantity of pantopaque into the lateral ventricle and while manipulating the head have watched its passage into the third ventricle and through the cerebral aqueduct and fourth ventricle. Rarely has operation to bypass ventricular obstruction produced by the tumor been indicated. These neoplasms have shown a variable response to radiation, and only infrequently has improvement been as great or as long retained as in medulloblastomas.

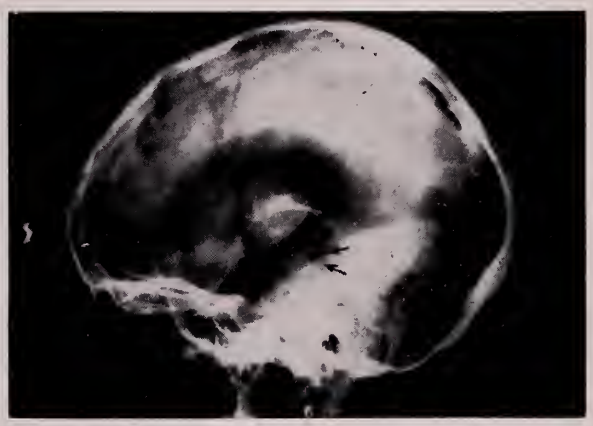

Fig. 2. Lateral film of the skull after ventriculography. There is marked dilatation of the lateral and third ventricles. Arrows indicate the site of anterior kinking of the aqueduct of Sylvius caused by midline cerebellar astrocytoma.

CASE 3.—A 4 year old child was admitted to the hospital on account of crossing of her eyes and weakness of the left side of the face and of the right arm. Two months earlier strabismus was noted, and soon the facial weakness appeared. A tremor appeared in the right arm, and the head could not be turned well to the left. Her speech became somewhat slurred, and it was believed her hearing had diminished bilaterally. The head was held in a "cocked" position slightly turned to the right. There was inability to turn the eyes to the left (disturbed conjugate deviation), and there was also left internal strabismus. The left pupil was larger than the right. The tongue deviated to the left, and the left half of the tongue was atrophic; the speech was slurred. There was an involuntary tremor of the right arm, and the right grip was weak. There was hypotonia of the muscles, and the deep reflexes were sluggish. A right Babinski response was present. The gait was unsteady with tendency to fall to the left.

Roentgenograms of the skull showed no abnormalities.

Pneumoencephalogram showed the spinal fluid pressure and the spinal fluid to be normal. There was slight dilatation of the ventricular system. The cerebral aqueduct and fourth ventricle were displaced posteriorly indicating increased size of the brain stem and thus establishing presence of neoplasm therein.

Following pneumoencephalogram the patient received a course of roentgen therapy directed to the brain stem. This

produced some objective improvement in the use of the right arm and in the gait, but there was no definite change in the cranial nerve signs.

This patient is reported to have died 15 months after hospital admission. She had not returned for follow-up examination in that interval.

DISCUSSION

Consideration of the possibility of intracranial tumor in children leads to an earlier and more frequent recognition of this condition. When this diagnosis is seriously entertained, ophthalmoscopic examination as well as neurologic examination is indicated. Roentgenograms of the skull often provide helpful information. Lumbar puncture may be dangerous to the patient and rarely provides useful information. In most instances special neurosurgical diagnostic studies, such as ventriculography, will be required to establish the diagnosis. Surgical exploration should be carried out as soon as the diagnosis of intracranial tumor can be established, unless the tumor is unequivocally located in the brain stem. The results in patients with cerebellar astrocytoma compare favorably with the best results obtained surgically in any other neoplastic disease.

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Older Persons Complain Less About Hospital Nursing Care

Older patients in small hospitals have the fewest complaints about the quality and quantity of nursing care, according to an article published in the November issue of *Hospitals* based on a survey of patient opinion. The Public Health Service with the cooperation of the American Hospital Association conducted the survey among nearly 9,000 patients in 60 hospitals.

Patients in the smaller hospitals, 100 to 299 occupancy, reported the least number of omissions of nursing care while patients in the 300 to 499 size hospitals reported the most omissions, said the authors of "Polling Patients and Personnel." The older patient was concerned with small details of comfort while the younger person was preoccupied with boredom, the survey showed. The younger person liked to have more people around him.

Lymphoma In Children

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UNDER the term "lymphoma" in this report, we include Hodgkin's disease and lymphosarcoma. Further subdivision of these two broad groups would serve no useful purpose in a small series. It may not be justified even from oncologic considerations, for some observers believe the various cytologic types of these diseases to be but varying stages of a common process.[2] In our tabulations, "Hodgkin's disease" includes the granulomatous and sarcomatous types; "lymphosarcoma" includes giant follicle, lymphoblastic, lymphocytic, and reticulum cell sarcomas. Patients with leukemic hemograms have not been included in this study.

Dr. Martin Schneider and his coauthor are from the Department of Radiology, University of Texas Medical Branch.

Lymphomas rank among the most common malignant tumors of childhood. At the University of Texas Medical Branch, of 292 patients with lymphoma registered from 1942 to 1955, there were 22 children. Adequate radiotherapy offers palliation of distressing symptoms and appears to prolong life.

Among the malignant tumors of childhood, the lymphomas rank among the most common in published reports. In a previous communication on our experiences with radiation therapy for children, lymphomas ranked second to brain tumors in frequency among neoplasms treated in our department. Such comparisons are not identical with the absolute incidence of these diseases, since not all patients with malignancy come to medical centers, nor are they all treated by radiation therapy. However, most children with cancer are so treated, either as a method of choice or in cooperation with other therapy, and such reporting is probably valid in indicating relative figures of incidence. During the period covered by this study (1942-1955), all children in our institution with lymphoma were referred for radiation therapy except 1 with a single ileal lesion.

The extent to which lymphoma occurs in childhood, compared to all lymphomas as reported in several representative series, is indicated in table 1. Some reports have indicated age distribution by decades, and some by the widely accepted pediatric grouping of all patients up to 15 years of age. Despite this inconsistency, the closeness of the percentages of pediatric lymphoma occurrence is noteworthy. In our hospital, 22 (7.5 per cent) of 292 lymphomas, registered between 1942 and 1955, were in children.

TABLE 1.—*Occurrence of Lymphoma in Children.*

Author	Cases of Lymphoma	% in Children	Age Range (yr.)
Sugarbaker & Craver[8]	196*	9	0-20
Minot & Isaacs[6]	477	11	0-15
Gall & Mallory[3]	545	13	0-20
Schneider & Bakker	292	7.5	0-15

*Lymphosarcoma.

Within our pediatric group of lymphomas, there is a sex ratio of 14 males to 7 females. The age distribution graph in figure 1 reflects the high incidence among younger children with the extremes occurring at birth and at age 14 years. Of the 22 cases, 13 occurred in the age range 0-4 years; 3 in the range 5-9 years; and 6 in the range 10-14 years.

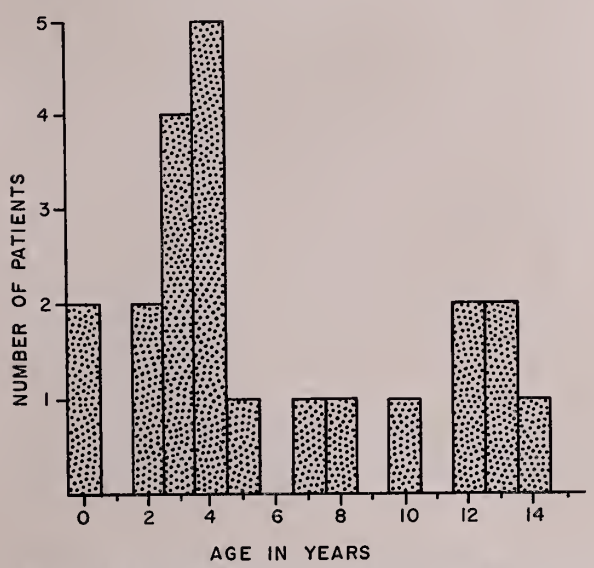

Fig. 1. The age distribution of pediatric cases of lymphoma at the University of Texas Medical Branch (1942-1955).

CLINICAL STAGES

The clinical staging of malignancy is a vital aid to underscore the importance of early recognition and treatment of the disease, and to understand the need for variation in the therapeutic approach at different stages in the natural history of a cancer. Such staging is an expression of clinical appraisement, upon which the choice of treatment depends. It is therefore necessary even though we recognize a measure of discrepancy between clinical determination of the extent and anatomic (possibly microscopic) distribution of the disease. The stages are defined in table 2 and are almost identical with those of other writers on the subject.[7] Inevitably, some cases classed as stage I or II at the time of initial recognition revealed clinical evidence of more generalized disease soon thereafter; the original staging was maintained, however. We have chosen to include in stage III those cases with but two areas involved if those areas are not adjacent, implying that the appearance of the disease in areas distant from each other surely indicates generalized lymphoma (table 2). Of the 8 cases in stages I and II, 4 involved only the left cervical nodes, 1 involved left and right cervical nodes, 1 involved only the right orbit, and 1 the ileum.

TABLE 2.—*Clinical Stages of Lymphoma.*

Stage	Extent of Involvement by Lymphoma
I	One regional group of lymph nodes, or one extranodal site.
II	Two adjacent lymph node groups.
III	Two separated lymph node groups; three or more groups.

It is to be expected, of course, that the more generalized disease at the time of diagnosis will lead to shorter survival times than localized disease, and little if any weight can be attached to this difference from the standpoint of therapy. Classified by clinical stages, these patients reveal differences in ages of onset, in cytologic types, and in survival times (table 3).

Differences in ages and cytologic types are striking when one compares the early and late stages. The average ages in table 3 reflect our finding that 6 of the 8 stage I-II patients were older than 5 years of age. Further, the stage III cases were preponderantly lymphosarcomas (12 of 14) in contrast to the equal distribution of Hodgkin's disease and lymphosarcoma (4 of each) in the earlier cases. One suggestion derived is that lymphosarcoma is more rapid in its course among younger patients. The disparity shown between the early and late stages, in the ratio of Hodgkin's to lymphosarcoma cases, also indicates the more rapid course generally found with lymphosarcoma, particularly if one notes that at least 1 of the latter in stage I is orbital in location and thereby may carry a more favorable prognosis. The lymphosarcoma of the ileum may be assumed to be of lymphnodule origin in a Peyer's patch. Of the two Hodgkin's cases among the stage III group, 1 was cytologically identified as Hodgkin's sarcoma, a disease of

greater malignancy than granulomatous Hodgkin's disease, and considered by Custer and Bernhard[2] to be virtually identical with reticulum cell sarcoma.

"DELAY FACTORS"

In table 4, an attempt is made to summarize the points at which there occurred delay between the onset of lymphoma and the first date of definitive treatment. This type of analysis tends to demonstrate whether or not we ought to be content with the results of present education of lay and professional groups in the need for early recognition of cancer, if earlier recognition is to affect survival rates favorably. In lymphoma, it points up the difference in rapidity of the natural course of Hodgkin's disease and of lymphosarcoma.

The "parent" delay factor represents the time elapsed between the onset of symptoms or signs, and the first visit to the physician. The "physician" delay factor includes the time that passed before a tissue diagnosis was made and the additional time, which may have been partly a "parent" delay in some cases, before definitive treatment was instituted.

It is apparent that the more benign appearance of Hodgkin's disease and its more insidious course in children lead to longer delays until treatment; the delays for lymphosarcoma are relatively brief, a token of the more dramatic rapidity with which clinical signs arise, increase, and cause alarm. In this regard, it should be borne in mind that lymphosarcoma was overwhelmingly predominant in the stage III group.

There are occasional exceptions to this difference in natural history of the two broad cytologic groups: Hodgkin's sarcoma shows the relative malignancy of lymphosarcoma, of which it may be a transitional stage. On the other hand, giant follicle sarcoma has a characteristically long and more benign course before transition to more malignant cytologic and clinical types.

TREATMENT

The treatment was radiotherapeutic in all but 1 case: alone, followed by, or in combination with, radiomimetic chemicals, cortisone, or surgery (1 case). Most cases were treated by radiotherapy alone; treatment techniques and schedules have changed as responsible personnel has changed during the years these cases were seen (1942-1955). A consistent pattern of treatment effects does not emerge from so small a group. The senior author has followed the acceptable plan of prescribing more intensive radiotherapy for the stage I and stage II cases, at tumor doses of 3,500 r, and moderate regional or total body doses for the stage III cases. The supplementary use of radiomimetic chemicals in a few of our patients has added little or nothing measurable to survival times, but these drugs are used usually in the more advanced stages of the disease. The addition of cortisone, however, may well have contributed to the long survival to date of one stage III patient (66 months), whose diagnosis of lymphosarcoma was made at birth.

DISCUSSION

A voluminous literature on malignant lymphoma exists, but few authors have studied the pediatric

TABLE 3.—*Number and Type of Lymphoma, Average Age at Onset, and Average Survival Periods, According to Stage of Disease at Time of First Treatment.*

Stage	Number of Patients			Age at Onset (yr.) Av.	Age at Onset (yr.) Extremes	Survival in Months* From Onset Av.	Survival in Months* From Onset Extremes	Survival in Months* From Treatment Av.	Survival in Months* From Treatment Extremes
I, II	8	Hodgkin's	4	8.5	3-14	52.3	29.5-101	38.8	21-100
		Lymphosarcoma	4						
III	14	Hodgkin's	2	4.5	birth-14	12.6	3-66	9.5	1-65
		Lymphosarcoma	12						

*Patients with maximum survivals all living.

TABLE 4.—*Delay Factors in Recognition and Treatment of Lymphoma.*
(Figures represent average and extremes of delay in months.)

Cytology	Parent Factor	Physician Factor Diag.	Physician Factor Therapy	Total Delay	Survival Time From Therapy	Survival Time Total
Hodgkin's	5.3	9.7	1.1	16.1	18*	33.9*
Extremes	0-17	0-24	0-4		3-25	8-61
Lymphosarcoma	0.5	2.4	0.4	3.3	10.6†	14.5†
Extremes	0-3	0-9	0-4		1-64‡	3-65‡

*Including 1 Hodgkin's sarcoma, represented here by the minimum extreme.
†Excluding one extranodal (orbital) stage I patient, now surviving 9 years after surgery and radiotherapy.
‡Patient with maximum survival still living.

group in any detail in their reports. Our findings indicate that, although there was much less delay in bringing the children with lymphosarcoma to treatment (table 4), most of them were already stage III cases, a measure of the more malignant early invasiveness of these neoplasms than of Hodgkin's disease (table 3). The insidious onset of many Hodgkin's cases and a lack of suspicion acute enough to obtain earlier tissue examination of lymphadenopathies are yet accompanied by a relatively high proportion of early cases of Hodgkin's disease. Consequently, we find longer average survival times than for lymphosarcoma in the children of this series.

On the other hand, the longest individual survivals (all patients living now) of this entire group occurred in cases of lymphosarcoma, 2 of which were stage I cases and 1 a stage III case treated with roentgen therapy and cortisone. This is not inconsistent with the findings of Lenz, Wells, and Stout,[5] in whose series lymphosarcoma showed higher 5 and 10 year survival rates than Hodgkin's disease.

Age has been cited as an influence on prognosis for these neoplasms,[3, 4] which are said to follow a more malignant course in children and in elderly patients than in young and middle-aged adults. This impression seems particularly valid for lymphosarcoma in our pediatric patients.

Twelve of 14 patients 5 years old or younger had lymphosarcoma, and 11 of these 12 had stage III disease. Since the delay in obtaining treatment for the latter group is probably less than in adults, favorable alteration of the relatively rapid downhill course in children must be attempted by improved therapeutic efforts in the direction of consistently adequate radiation dosage where possible, combined with adjuvant chemical and/or steroid therapy.

The influence of treatment on the course of malignant lymphoma is twofold: the palliation of distressing symptoms and the prolongation of life with possible long-term survivals and even cures. There has been some degree of pessimism with respect to the ability of any therapy to prolong life in these patients. Control series of untreated patients are difficult to gather, especially in the pediatric age group; we have none, inasmuch as some treatment, however limited or palliative in some instances, was given to all pediatric cases during the time encompassed by this study. Gall and Mallory,[3] however, found that, for all ages, 76 patients not treated survived an average of 0.8 years from onset, whereas 545 patients in the entire group studied clinically (including the untreated ones) survived an average of 2.9 years. Except in Hodgkin's sarcoma and the lymphoblastic type of lymphosarcoma, treatment prolonged life, in their opinion. The long-term, symptom-free survivals demonstrated by Lenz and others[5] provide strong support for a positive therapeutic approach to lymphoma. The conclusion drawn by Jelliffe and Thomson,[4] that the stage of the disease is more important than duration of symptoms, also may suggest that a slower natural history of some cases may offer the opportunity for long-term, symptom-free survival ("cure") by the use of intensive local roentgen treatment in the earlier stages. As in other malignancies at all ages, the most important single factor basic to the outcome for the patient is the natural history of the neoplasm, yet it has been demonstrated that this factor may be modified by adequate therapy.[1]

SUMMARY

Lymphoma among pediatric patients at the University of Texas Medical Branch, during the years 1942-1955, is reviewed. Of a total of 292 patients registered here with lymphoma during this period, 22 (7.5 per cent) were children.

Characteristics of age and sex distribution and factors contributing to delay in diagnosis and treatment are summarized from this study. Also discussed are the influences on survival time of the clinical stage of disease, of the broad cytologic group, and of treatment.

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Decreased Calories Will Control Weight

A person should decrease his caloric intake by 10 per cent each decade, 1 per cent a year, to prevent gaining weight, according to Dr. Herbert Pollack, associate professor of clinical medicine, New York University Post-Graduate Medical School. A man of 20 can expect to gain about 50 pounds by the time he reaches 60 if he continues to consume the same number of calories without a regular decrease, reports Dr. Pollack.

Osteogenic Sarcoma

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THE PATIENT, a 13 year old girl, was first seen on July 5, 1955, for painful swelling in the region of the right knee. The swelling was first noted in January and had increased gradually since that time; the pain was of 1 month's duration. Examination revealed an apparently healthy teenage girl with a 10 cm. fusiform tender mass over the anteromedial aspect of the proximal end of the right tibia. The clinical and radiologic impressions were of osteogenic sarcoma. Removal of a section for biopsy under tourniquet confirmed the impression. High thigh amputation was performed on July 7; pulmonary metastases were visible by roentgen ray on November 7; the patient died on June 7, 1956.

The foregoing is typical of the history and course of osteogenic sarcoma. The patient is between the ages of 10 and 20 years; he has a tumor in the region of the knee; he dies of pulmonary metastases 1 year after diagnosis regardless of mode of treatment. It is because of this consistently dismal outlook that the radiologist and surgeon have a sense of frustration when confronted with such a case. The disease is a major unsolved problem from the standpoint of management. There have been occasional encouraging publications, but from the relatively few significant reports available there is only suggestive evidence that one method of handling is more effective than another in increasing the survival time.[5, 7, 8, 10, 14]

Dr. E. Burke Evans is ossistant professor of orthopedic surgery, his co-author from the Department of Radiology, University of Texas Medical Branch.

The typical case of osteogenic sarcoma occurs in a patient between the ages of 10 and 20 years; he has a tumor in the region of the knee; and he dies of pulmonary metastases 1 year after diagnosis regardless of treatment. Pain, swelling, limitation of motion, limp, and perhaps local heat and discoloration are early symptoms. Surgical ablation preceded by irradiation is the usual treatment.

There are but two variables subject to the control of the physician which may reasonably influence the survival: the time of recognition and the type of treatment. It is the specialist who determines the management, but the opportunity for recognition usually rests with the family physician. It is thus with the recognition and methods of management of osteogenic sarcoma that this writing is principally concerned.

INCIDENCE

It has been estimated that the incidence of osteogenic sarcoma is 1 in 117,000 for the general population.[6] The tumor occurs in all ages, but incidence between the ages of 10 and 20 is so high that it is apparent there must be a definite relationship between the etiology and the factors governing the rapid growth period of the patient. There is decline in the incidence in the third decade which continues until after the age of 50 when there may be a slight rise. Osteogenic sarcoma occurring at this age is usually secondary to preexisting disease such as osteitis deformans or enchondromas.

The tumor is seen more often in males than females in a ratio of about 3 to 2. There is no racial predilection or immunity.

MORTALITY AND SURVIVAL

The mortality rate for the general population has been quoted at 90 to 95 per cent.[15] No figure is available for each of the various age groups.

Five year survival rates as given in the available literature vary from 5 to 30 per cent. Lichtenstein[17] proposed that the more optimistic reports include lesions other than osteogenic sarcoma. A recent comprehensive report from Mayo Clinic gives a figure of 19.3 per cent. Our own rate covering only a 10 year period is 18 per cent in the histologically proven cases.

TERMINOLOGY

The term osteogenic sarcoma establishes that this is a tumor which possesses the potential for bone formation or which arises from bone-forming mesenchyme.[17] It is a characteristic of this tumor, though the basic cell is of spindle type, that in random fields of one lesion there may be found osteoid tissue, cartilage, myxoid material, or dense fibrous tissue. It is tempting thus to incorporate each of these in the name of the tumor, but it is more practical and less confusing to make exclusive use of one term and to qualify this as necessary with pathologic and roentgen description.

ETIOLOGY

Direct trauma has never been proven as a cause of osteosarcoma, though there is often history of trauma, but there is good documentation of cases of osteosarcoma arising after radiotherapy,[13] and radioisotopes and chemical preparations such as beryllium sulfate[16] have produced it experimentally; thus it might be plausible to implicate other agents of environmental or cellular alteration such as direct trauma, infection, high fever and inanition, vitamin deficiency, or endocrine disturbance; and it is possible that there does exist, to affect the total chain of events, an individual or even hereditary predisposition. Whatever the etiology, it must surely be, as Coley suggests,[6] a combination of inconstant factors, and it remains at present obscure.

SITE

Though the tumor may occur in any bone, it is found most often at the ends of long bones, the lower end of the femur and the upper ends of tibia and humerus being the common sites. Other less common sites are fibula, ilium, vertebrae, jaw, scapula, and clavicle. Of our cases, 6 occurred in the distal femur, 5 in the proximal tibia, 2 in the proximal humerus, 1 in the proximal femur, and 1 in the clavicle.

It is not unreasonable that the tumor should occur often in metaphyseal areas. It is here that the active cellular elements of the marrow are concentrated; it is here that blood supply is copious and blood flow sluggish; it is here, because of epiphyseal proximity, that growth is most active and that cell rests may be found; and it is this region which is most liable to trauma, should this be a factor.

CLINICAL FEATURES

Osteogenic sarcoma is so insidious in its growth that it is rarely the fortune of the physician to make a diagnosis before the tumor has reached consequential proportions, and it may matter little then whether the patient has sensed irregularity for 1 week or 6 months. There is always, however, the chance case which with slight complaint or minor manifestation gives opportunity to one aware.

The most which can be said concerning early symptomatology is that it is nonspecific. We have these manifestations from which to draw: pain, swelling, limitation of motion, limp, and perhaps local heat and discoloration.

Pain logically should be the earliest symptom, and bone pain has a character which is distinctive. It is deep and often throbbing and is poorly relieved by aspirin. It may result from intracortical pressure or from elevation of the periosteum. As a tumor proliferates, the pressure within the bone increases, and if this pressure is not sufficient to give vague pain, the onset of discomfort may coincide with cortical penetration and elevation of the periosteum. Thus in the earlier stages the pain, though constant, may be mild and relieved by rest so that the child may go for several weeks or even months before he mentions the discomfort. Or it may be that trauma to the part will accentuate the discomfort or cause apparent acceleration of growth. The pain pattern then may be not unlike the so-called growing pains. It will be deep and perhaps poorly localized until cortical or periosteal involvement or the appearance of a soft tissue mass give it palpable localization. It may be present for a few days and then diminish only to increase in severity a month or so later.

Local swelling (fig. 1), except that following trauma, is usually persistent once it occurs. As a rule pain will accompany or even precede the swelling, but

Fig. 1. There is moderate fusiform enlargement. The patient was aware of swelling just 1 month prior to this photograph. He has survived 5 years. This is the same patient as in figures 3 and 10. (Case 11.)

with certain tumors the pain associated with central pressure or with cortical and periosteal encroachment may have been transient and forgotten or dismissed; and the subsequent advancement slow enough as not to cause appreciable discomfort. This possibility is reflected in the tabulation of initial symptoms (table 2).

If the tumor has grown rapidly and has a vigorous blood supply, there will be local heat and redness or other discoloration often associated with prominently visible subcutaneous vascularity (fig. 2).

If the tumor is in the region of or involves a joint or its supporting structures, there may be limitation of motion; and if it is in a weight bearing extremity, there may be a limp. If the extremity has been favored for some time, there will be muscle atrophy.

Fig. 2. There is marked swelling with prominent subcutaneous vascularity overlying a large radiologically osteolytic tumor. There was an 8 month history of painless swelling. Survival was 1 month from the date of this photograph.

Of our patients 8 complained initially of swelling, 4 of pain, 1 of limp; and in 2 instances fracture occurred before the patient had any awareness of the tumor.

The manifestations of the later stages of sarcomal growth are more clearly defined. Although some tumors may attain great size without causing appreciable generalized symptomatology, in the majority of cases as the tumor reaches recognizable proportion there will occur varying degrees of anorexia, weight loss, general inanition, and low grade fever. The sedimentation rate may be elevated, the hemoglobin lowered, and the alkaline phosphatase will vary with the tumor's osteoblastic activity, but these laboratory findings are of more academic interest than diagnostic importance.

ROENTGEN EXAMINATION

It has been stated that when a lesion can be recognized by roentgenogram the growth is already advanced. It may be stated, however, with as much security that until the lesion can be visualized by means of roentgenogram, no positive diagnosis of bone tumor can be made by any means. Roentgenography is thus the most important and the only essential aid to the early recognition of bone sarcoma, and the free employment of this diagnostic aid in suspected cases cannot be too much encouraged.

In the roentgen examination of bones one looks for the absence of bone where it normally should be found and for the presence of bone where it should not be found; the pattern of rarefaction or proliferation is determined by the type of pathologic process. In the osteogenic sarcoma the pattern is determined by the ability of the tumor to destroy normal bone and to form tumor bone. If the bone producing tendency is great, bone destruction is accompanied by tumor bone production, and the tumor is called osteoblastic or sclerotic. If there is little tendency to form new bone, the process will appear largely destructive, and the tumor is called osteolytic.

The active cellular elements of the tumor destroy and replace bone, and most often the earliest change noted in the roentgenogram is localized, irregular, and as a rule multiple areas of rarefaction (radiolucency). The areas of bone destruction often merge imper-

Fig. 3a. Lateral view of the knee showing mixed osteolytic and osteoblastic lesion in the proximal tibial metaphysis. Parallel periosteal new bone and perpendicular "sun-ray" spiculation are seen posteriorly.

b. Anteroposterior view of the knee in the same patient showing Codman's triangle at the distal extremity of the tumor. Proximal spread has been halted at the unfused epiphyseal plate.

ceptibly into the normal bone shadow. If the growth of the tumor continues unabated, the cortex is eventually perforated (not expanded);[3] this is seen as numerous areas of cortical discontinuity in the metaphyseal end of the shaft of the bone. Because of metaphyseal density and cortical superimposition, there may be a great deal of bone destruction before detectable roentgen changes occur, and as a rule the lesion is not recognized until there is cortical penetration. Indeed, it may be necessary to alter the exposure technique or to obtain oblique and other views of the opposite extremity for comparison in order to demonstrate the presence of bone destruction.

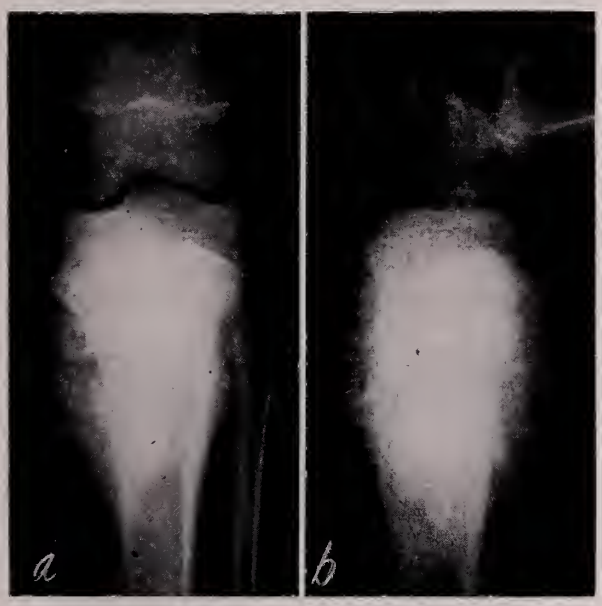

Fig. 4a. Anteroposterior view of the knee showing formation of tumor bone within the metophysis and within the soft tissue mass, "sun-ray" spicules laterally, and failure of the tumor to penetrate the incompletely fused epiphyseal plate. (Case 14.)
b. Lateral view of the knee in the same patient.

After perforation of the cortex the periosteum is lifted, and the tumor dissects beneath this layer proximally and distally. The cambium layer of the periosteum responds to this injury by proliferation of new bone parallel to the shaft in an effort to strengthen its longitudinal support; this periosteal new bone formation is seen as opaque, sometimes laminated striations at the extremities of the tumor which gradually merge with the unaltered cortex. The elevated periosteum and adjacent longitudinally directed new bone at the extremities of the tumor form, with the shaft, the so-called Codman's reactive triangle[18] (fig. 3 and 6). For a time the periosteum contains the tumor, but if tumor growth continues, this layer is eventually perforated in numerous places, freeing the tumor to invade the soft tissues. Roentgenographically a soft tissue mass is manifest, and because the cells comprising the tumor have osteogenic potentialities, irregular areas of new bone are seen throughout the tumor (tumor bone), both within the soft tissue mass and within the invaded area of the parent bone (fig. 4). It is the frequent arrangement of this tumor bone perpendicular to the shaft of the bone of origin which produces the often described "sun ray" spicules[1, 15, 18] (fig. 3 and 4). It is to be emphasized, however, that bone spicules perpendicular to the shaft are seen in other tumors and non-neoplastic bone diseases, such as Ewing's tumor and ossifying hematomas, although in these other diseases it is periosteal new bone and not tumor bone which produces this finding.[4, 18, 19] Ossification proceeds toward the periphery of the tumor, and the new bone is arranged to support the tumor mass, not the old bone from which it springs.[20] If the tumor has great osteogenic abilities, intense sclerosis in the medullary canal and massive new bone formation within the tumor may be prominent features (fig. 5). In tumors which are chiefly osteolytic the most outstanding roentgen finding may be a large soft tissue mass which has swept away the end of the bone with little or no evidence of periosteal reaction or new bone formation (fig. 6).

Roentgenographically, osteoblastic osteogenic sarcoma may show only thickened cortex, with obliteration of the normal cortical markings and narrowing of the medullary canal in its early stages. Not uncommonly an irregular area of increased density will be the first roentgen evidence of the presence of a tumor.

Fig. 5. Anteroposterior and lateral views of the proximal tibia showing massive sclerotic new bone (tumor bone) formation within the shaft and within the soft tissue mass. (Case 5.)

In the typical case, medullary spread ordinarily occurs simultaneously, and it is important to emphasize that the tumor usually extends for a considerably longer distance in the medullary canal than the radiographic appearance would suggest.

Cartilage acts as a barrier to tumor spread, and consequently the malignant progression is usually halted at the epiphyseal plate, leaving the epiphysis uninvolved. This forms one of the striking roentgen features of osteogenic sarcoma (fig. 3 and 4). Once epiphyseal fusion has occurred, however, the tumor rapidly invades and destroys the epiphysis. The articular cartilage remains as an effective barrier, however, and joint involvement, which is rarely seen, occurs almost always as a result of soft tissue extension of the tumor with invasion and destruction of the joint capsule.

Fig. 6. Largely osteolytic lesion in the proximal humerol metaphysis with large adjocent soft tissue moss. Pathologicol frocture has occurred. Codman's reoctive triangles are seen ot the distol extremity of the lesion. (Cose 8.)

If weight bearing continues, the possibility of pathological fracture is to be considered, and its roentgen appearance differs from that ordinarily seen only in that the fracture occurs through invaded and partially destroyed bone[21] (fig. 7). Indeed, callus may form and healing proceed while the tumor continues its destructive course.

Metastatic spread occurs mainly by the hematogenous route. The commonest metastatic site is the lungs, and radiographic evidence of pulmonary spread usually precedes symptoms caused by lung metastases (fig. 8). Other bones, especially the skull, femur, and tibia, have been described as the sites of secondary lesions.[12]

Primary chondrosarcoma (that is, arising *de novo*), the other important malignant bone tumor with osteogenic and chondrogenic potentialities, cannot often be distinguished radiographically from osteogenic sarcoma. The tumor generally grows more slowly, produces a larger soft tissue mass, and characteristically contains blotchy areas of calcification and ossification within the tumor mass. Pathological fracture is rare.

Secondary chondrosarcoma (that is, arising in a preexisting benign chondroma) is infrequently seen in children.

A list of differential possibilities necessarily includes a large variety of other diseases and lesions. The most important conditions from which osteogenic sarcoma must be differentiated are noted in table 1.

Misdiagnoses are not uncommon. Of the cases herein reported, definitive treatment was delayed in 5 because of inaccurate diagnoses; 2 were diagnosed as simple fracture, 1 as abscess, 1 as inflammatory arthritis, and 1 as rheumatic fever.

A histological diagnosis rarely can be made with accuracy from the roentgen appearance of the tumor alone. If a suspicious lesion can be identified as a malignant tumor of bone and if it can be classified as primary or metastatic, then we have accomplished all that can be reasonably expected from the radiographic analysis of the patient's lesion. An informed guess often can be made as to the histology of the tumor, but since osteogenic sarcoma can mimic other lesions

Fig. 7. Oblique view of the distal femur showing a lorge osteolytic defect on the posteromedial aspect of the distol femoral metaphysis through which o spiral pathological frocture has occurred. (Case 10.)

so closely, other means must be employed if a more definite pathological diagnosis is necessary. The value of the radiologist's diagnostic opinion is greatly enhanced by access to accurate knowledge of the patient's history, symptomatology, and physical findings, and cooperation on the part of the referring clinician in providing this information often will be rewarded by earlier establishment of the nature of the patient's disease with the advantage of earlier well planned therapy.

TABLE 1.—*Conditions from Which Osteogenic Sarcoma Must Be Differentiated.*

Inflammations
Pyogenic osteomyelitis
Syphilitic osteomyelitis
Tuberculous osteomyelitis
Post-traumatic conditions
Irregular and excessive callus following fracture
Calcifying and ossifying subperiosteal hematomas
Myositis ossificans
Bone-eroding aneurysms following wounds
Benign tumors and cysts
Other malignant tumors
Ewing's sarcoma
Metastatic malignant disease, especially neuroblastoma
Reticulum cell sarcoma
Malignant giant cell tumor
Miscellaneous conditions
Ossifying bone infarcts (sickle cell anemia, especially)
Isolated cortical defects (Caffey)
Infantile cortical hyperostosis
Osteochondrosis (aseptic necrosis)
Melorheostosis

BIOPSY

The use of routine biopsy is criticized by those who maintain that clinical and roentgen impression is enough and that biopsy should be reserved for those cases concerning which there is some indecision; but in the knowledge that there are other lesions which radiographically and clinically can closely resemble osteogenic sarcoma, it would seem hazardous to institute radical treatment without pathologic substantiation. It must be borne in mind, of course, that at certain stages microscopic sections of callus, organizing hemorrhage and myositis ossificans, for instance, may so closely resemble sarcoma that it is impossible to state definitely that the lesion represents a benign process. That there can occasionally be confusion merely points up the importance of using every available diagnostic device of which biopsy is one.

TREATMENT

Emphasis has been placed upon the importance of early recognition of osteogenic sarcoma. Now it must be noted that statistically it is difficult to prove that treatment in the so-called early stages appreciably extends the survival period. It is more than likely a fateful combination of factors and features in the individual case rather than the aggressiveness of the surgeon which determines the course.

Some of the factors to be considered are the age of the patient, the duration of symptoms, the location of the tumor with reference to the trunk, the radiologic appearance and orientation, and the pathologic type and grade. The relationship of each of these variables to the survival differs from report to report. Coley[7]

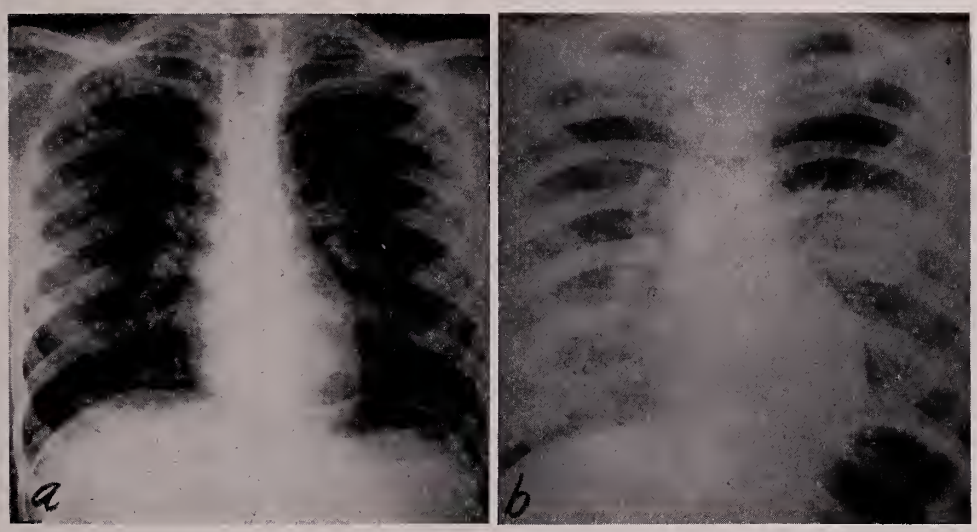

Fig. 8a. Normal chest roentgenogram made on July 5, 1955. (Case 14.)

b. Film of the same patient made November 7, 1955, showing a single large metastasis in the left mid-lung field and a smaller metastatic lesion in the right first anterior interspace.

has expressed the feeling that the most reliable index to the rapidity of growth and metastatic tendency is the microscopic appearance; but he admits that there are exceptions.

We must assume regardless of the aforementioned factors that very early in the growth of the tumor, cancer cells circulate freely and that by the time the lesion is recognized there are many such cells in the general circulation. These cells ultimately will do one of three things: they will die in the circulation, they will implant and die, or they will implant and grow. In the consideration of treatment, thus, it is not so much the tumor itself which concerns us—we can usually remove that—as the fate of the circulating cancer cells.

There is agreement that ablation of the tumor is the treatment of choice in almost all instances, and there is even fair agreement as to the amputation site. Amputation level is usually through the next proximal bone to that involved or at the proximal end of femora or humeri involved distally, disarticulation being reserved for more proximal involvement of humerus and femur. However, there is not agreement as to the proper time for surgical removal or as to whether or not there should be companion treatment directed at control of metastases.

In 1940, Ferguson,[10] having analyzed 400 cases of osteosarcomas of all types from the American Registry, reported that in those patients in whom amputation had been performed less than 6 months from onset of symptoms the 5 year survival rate was 5 per cent, whereas those cases similarly treated after a 6 month history showed a 5 year survival rate of 34 per cent. He noted also the early appearance of metastases following early amputation and theorized that the late amputations were done in a quiet period when the tumor was more stabile and conditions less favorable for metastases. The influence of this report is still evident in more recent publications.

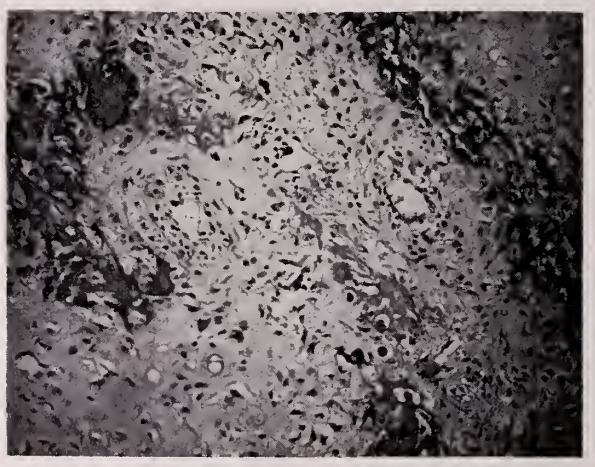

Fig. 9. Calcifying osteoid or so-called tumor bone is a prominent feature of this section. There is moderate pleomorphism in a relatively compact matrix. The spindle character of the basic cell is still apparent. Some of the cell patches suggest cartilage.

Certainly the most common practice is that of ablation of the tumor as soon as it is recognized. There are some who strongly favor preoperative radiation and some who feel there are no good evidences of its efficacy. It should be true that the tumors which are slow growing will likely be diagnosed at a time more remote from onset than will those which are fast growing and that the survival period will have an inverse relationship to the tumor's aggressiveness independent of amputation time. This reasoning is the basis for objections raised to the policy of delayed amputation.

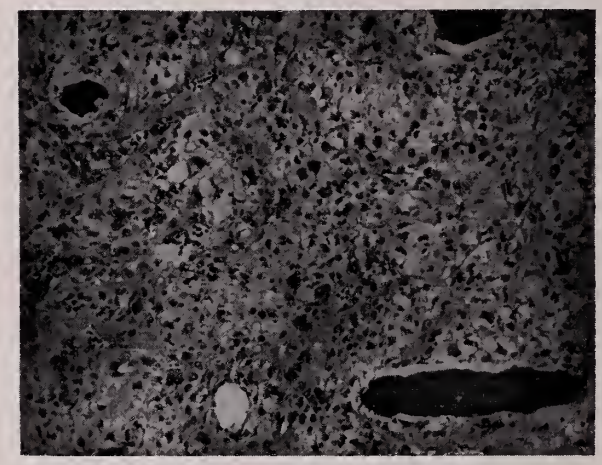

Fig. 10. Mere spicules of sclerotic bone remain in this bed of bizarre cellularity where strands of osteoid are yet uncalcified. This is grade IV osteogenic sarcoma.

There are, nevertheless, indications from responsible sources[2, 11] that amputation following a period of irradiation yields a greater number of 5 year survivals than amputation without radiation therapy. The amount of irradiation and the method of administration vary from institution to institution, but in general there are two approaches: one aims at short term therapy with lethal doses of roentgen ray; the other aims at maturation or stabilization of the tumor with relatively small doses given over a more extended period. Dosage with the more radical technique varies from 8,000 to 12,000 r given in divided doses over a period of 1 week to 1 month. This is followed immediately with amputation. With the more conservative technique the dosage varies from 3,000 to 6,000 r administered in small doses over a period of 2 months or more with tumor response and the patient's condition governing the time of amputation.

It is known that some tumors of the osteolytic type, with proper irradiation, will become more sclerotic or osteoblastic, and this response is thought to indicate maturation or differentiation. The pa-

tient's general condition may improve with conservative treatment, there being a decrease in sedimentation rate and temperature, an increase in appetite and even weight gain. Amputation ideally follows a quiescent period of approximately 2 months during which there has been no temperature elevation, no pain, no increase in size, and no sudden roentgen change.[11]

Four of our own cases received roentgen therapy prior to amputation. Dosage varied from 5,000 r delivered in 7 days to 11,500 r delivered in a 12 day period. The initial dose was delivered in each case immediately following removal of tissue for biopsy while the tourniquet was still in position. Amputation in each case immediately followed the period of irradiation. Of this group there is one 5 year survival. One other case received palliative roentgen therapy only with a total dose of 3,000 r delivered in 15 days. This experience is too small for conclusions. The one survival might have been expected anyway because of the long relatively undramatic history.

Roentgen therapy alone is indicated if the tumor is so situated that surgical ablation is impossible, if the tumor is so far advanced that amputation is impractical, or if the patient refuses amputation.

Sir Stanford Cade,[5] in a recent publication, strengthened the position of roentgen therapy in osteogenic sarcoma with a report of a series of 133 histologically proven cases treated by radiotherapy either with radium or with supervoltage roentgen rays. In most of the cases amputation could be postponed 2 to 18 months and in some of the cases response was so satisfactory that no amputation was performed.

If roentgen therapy is actually effective in giving a better 5 year survival rate, it must be assumed that the effect is not just upon the tumor itself but upon the potentially metastatic cells. Local therapy conceivably may control metastases in three ways: by decreasing the number of viable cancer cells released from the tumor to the circulation, by altering the cells already in circulation so as to make their growth and implantation less likely, by making the environment unfavorable for implantation or growth of the cells, or by a combination of these possibilities. The local effects of irradiation are fairly well understood. Though osteosarcomas as a group are considered radioresistant, there is inhibition of mitoses, a decrease in the blood supply, an increase in the number of fibroblasts, gradual ossification of the neoplasm, and often actual diminution in size. The general effects, on the other hand are less well understood, but it is the consensus that in tumor therapy as in roentgen treatment of inflammatory conditions there are local changes only. Yet there is depression of leukocyte count and there is often a period of nausea and vomiting known simply as radiation sickness; and as noted previously, with conservative roentgen therapy there may be substantial improvement in the patient's general state. Though these changes are secondary to the changes at the tumor site they also reflect alteration of the general environment which conceivably could be a factor in the control of metastases.

There are other measures or adjunct therapies aimed at control of metastases. Since there is no agreement in this area, it will suffice to mention the possibilities.

The lung is the most consistent site of metastatic growth. The use of prophylactic doses of roentgen ray to the chest has had sporadic popularity and currently is practiced in certain areas with conviction, though generally it seems to have few advocates.

Nitrogen mustard has been shown experimentally by Cruz and others[9] to be moderately effective in preventing the "take" of carcinosarcoma cells when injected in the portal vein of the rat. This type of adjuvant therapy is being employed by these investigators at a clinical level for control of metastases in other than bone tumors. Though no report is available at this date of a series of cases of bone sarcomas treated with this adjunct, Banks[2] has stated that tumor chemotherapy, particularly of the nitrogen mustard group, seems to help.

Coley's bacterial toxins enjoyed a long popularity, but the use of them has now been largely abandoned.

ANALYSIS OF CASES

Table 2 is a tabulation of the consecutive cases of osteogenic sarcoma seen at John Sealy Hospital from 1946 through 1956. Two cases only were included which were not confirmed histologically. These were diagnosed by clinical and roentgen findings and were considered too far advanced for surgical treatment or even risk of biopsy. It should be noted that in this period there have been but 3 histologically proven cases in adults. The other 15 cases were in patients ranging from 6 to 17 years of age. Only the 15 cases of children and adolescents are included in the table. Each of these cases has terminated or the patient has survived 5 years or longer. Death was due to pulmonary metastases in all but 2 cases. In these there were metastases to spinal cord and brain which were more aggressive than those in the lungs.

Reference to the table has been made earlier regarding site, presenting symptoms, and radiation therapy. Though the series is small it is of interest to check various relationships.

For instance, it can be ascertained readily that survival time is better in the cases with involvement of proximal tibia than in those with involvement of distal femur. It can be shown further that the 5 cases, all in femur or tibia, which received preoperative roentgen therapy have a better post-treatment

survival than the 5 cases in the lower extremity which were treated with amputation alone.

On the other hand, if we analyze the 3 cases of 5 year survival, we find that 1 had a tumor of the clavicle and that 2 had involvement of the proximal tibia. Of the 2 patients with tibial tumor, 1 had a long history and had pre-amputation roentgen therapy, whereas the other had a short history and no preoperative roentgen therapy. The one who received no roentgen therapy had a histologic grading of IV.

In this series at least a protracted history does not indicate that the post-treatment course will be long nor a short history that it will be short. Since pathologic grading was not available on every case, it was not included.

Thus, no definite conclusions can be drawn from this material as regards factors determining survival. The information merely suggests that preoperative roentgen therapy was effective in prolonging life in the 5 cases so treated, and that more distally situated tumors have a long survival regardless of treatment. It is true, however, that small consecutive series such as this, though not significant in themselves, can contribute in large scale statistics so that the reporting or registration of such series should be encouraged.

CONCLUSIONS

Osteogenic sarcoma is presented as a catastrophic childhood disease the early recognition of which, because of its insidious nature, is unlikely. The roentgenogram, properly executed, is the single most important aid to recognition; and cooperation among surgeon, radiologist, and pathologist must be of the highest degree.

No one method of management has been so successful in increasing survival time in cases of osteogenic sarcoma that it has gained wide acceptance. As in other similar situations, the current great variety of opinions on the subject of treatment indicates the general lack of security. The present trend is again toward the consistent use of preoperative roentgen therapy. Since the control of metastases is the one essential to increasing the survival there are likewise renewed efforts toward a better comprehension of this problem.

The small series of cases presented substantiates most of the statistics thus far recorded. Since the problem of osteogenic sarcoma is yet unsolved, it is an obligation of those who see these cases in fair numbers accurately to report or register them in order that numerically valid statistics may serve eventually as a basis for standard management.

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TABLE 2.—*Consecutive Cases of Osteogenic Sarcoma Occurring in Persons Less Than 20 Years of Age Diagnosed at John Sealy Hospital from 1946 Through 1956.*

Case	Age (yr.)	Sex	Race	Site	Treatment: Radiation	Treatment: Amputation	Onset of Symptoms	Presenting Symptoms	Duration of Symptoms	Survival: From Onset	Survival: From Treatment
1	16	M	W	Dist. fem.	No	High thigh	Aug., 1946	Swelling	2 mo.	6 mo.	4 mo.
2	16	F	C	Clavicle	No	Excision	Aug., 1949	Swelling	1 mo.	7 yr.	7 yr.*
3	16	F	W	Dist. fem.	No	High thigh	Apr., 1948	Swelling	2 mo.	11 mo.	9 mo.
4	10	F	C	Dist. fem.	7,500 r	Disartic.	Jan., 1949	Limp	4 mo.	2 yr.	1 yr. 9 mo.
5	17	F	W	Prox. tib.	11,500 r	Mid thigh	June, 1949	Swelling	2 yr.	3 yr.	1 yr.
6	13	F	C	Prox. tib.	10,620 r	Disartic.	Mar., 1950	Swelling	1 wk.	1 yr. 4 mo.	1 yr. 3 mo.
7	15	M	W	Prox. tib.	5,000 r	High thigh	Apr., 1950	Swelling	11 mo.	8 yr.	7 yr.*
8	10	M	C	Prox. hum.	No	Foreqtr.	June, 1950	Fracture	1 mo.	4 mo.	3 mo.
9	16	M	W	Dist. fem.	12,400 r	Disartic.	June, 1950	Swelling	2 wk.	1 yr. 5 mo.	1 yr. 5 mo.
10	6	M	C	Dist. fem.	No	High thigh	Jan., 1952	Fracture	2 days	5 mo.	4 mo.
11	12	M	W	Prox. tib.	No	Mid thigh	May, 1952	Pain	1 mo.	5 yr.	5 yr.*
12	12	F	W	Prox. fem.	3,000 r	No	Aug., 1953	Pain	8 mo.	9 mo.	1 mo.
13	15	F	W	Prox. hum.	No	Foreqtr.	June, 1953	Pain	3 mo.	1 yr. 9 mo.	1 yr. 6 mo.
14	13	F	W	Prox. tib.	No	Mid thigh	Jan., 1955	Swelling	6 mo.	1 yr. 5 mo.	11 mo.
15	16	M	C	Dist. fem.	No	No	Mar., 1956	Swelling	2 mo.	3 mo.	No therapy

*Patients currently surviving without metastases.

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Genitourinary Neoplasms In Infancy And Childhood

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WITH the recent tremendous reduction in mortality from infectious and contagious diseases in the pediatric age group, there has been a subtended dramatization of the prevalence and importance of cancer in this same group. As the antibiotics have diminished the severity of infectious diseases and obviated many deleterious sequelae, the lack of therapeutic success in carcinoma has become all too evident. Certain maxims obviously deserve repetition in view of the results unearthed by even a cursory survey of the mortality statistics. The first of these is the statement that every solid mass in an infant or child is a malignancy until proven otherwise. In young children bladder and kidney malignancies account for many more deaths than poliomyelitis, whooping cough, syphilis, scarlet fever, and measles combined. It is significant that at most children's hospitals malignancies account for more than 6 per cent of admissions; and correlatively the highest cancer death rate occurs in the younger children, ages 1 to 5 years. Two further generalizations are important, that neoplasms in the young grow so rapidly a lingering death is rare and that most genitourinary cancers are embryonal in type. The high degree of malignancy characteristic of genitourinary tract tumors in children must enforce professional concern and engender publicity commensurate with the seriousness of the problem.

TUMORS OF KIDNEY

Renal neoplasms may be separated into those of the parenchyma and those of the renal pelvis. Tumors of the renal parenchyma may be benign or malignant. Benign tumors include adenoma, fibroma, lipoma, hemangioma, and cysts, either of the polycystic or solitary type. Since benign neoplasms usually are small, asymptomatic, and most frequently found at autopsy and in view of the fact that assurance as to their benignity requires histologic verification, a differential diagnosis will be included in the discussion of Wilms' tumor. Of the malignant tumors, there are two main types, the carcinoma or hypernephroma, rare in childhood, and the embryoma or Wilms' tumor. Carcinoma will be discussed with the Wilms' tumor.

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In young children bladder and kidney malignancies account for more deaths than poliomyelitis, whooping cough, syphilis, scarlet fever, and measles combined. Neoplasms in the young grow rapidly and most genitourinary cancers are embryonal. Immediate and complete urologic study following any suggestive urinary tract symptomatology may result in discovery of renal tumors when they are subject to cure.

Tumors of the renal pelvis in children are most commonly secondary to parenchymal or peripelvic growth, yet a few primary epithelial growths have been reported. Of the primary tumors papillomas and angiomas outnumber malignant epitheliomas, which have been reported only occasionally. A few sarcomas have been seen and an occasional case of leukoplakia, but the rarity of these lesions is such

that no symptoms or signs may be delineated as being peculiar to such tumors in children. The clinical picture and the diagnosis in these instances ostensibly does not vary from renal pelvic tumors in adults. Hematuria, flank pain, colic, and fever have been notated, and urographic filling defects in the renal pelvis are promulgative of a space-occupying lesion in the collecting system. Delay in the prompt therapeusis of such tumors may be occasioned by their statistical rarity, but immediate nephro-ureterectomy must follow exposure and biopsy, should urographic defects be constant.

Renal pelvic involvement by parenchymal neoplasm is the more usual type of pelvic tumor, and here again symptoms of obstruction due to tumor and blood clot bring the situation to light. It is usually obvious that the primary problem is a parenchymal neoplasm. When there is involvement of the renal pelvis or ureter by parenchymal neoplasm, complete nephro-ureterectomy must be done in contradistinction to nephrectomy for uncomplicated parenchymal tumor.

Secondary renal tumors such as the leukemic variety may allow almost total replacement of the kidney and produce a very large renal mass with rapidly deteriorating function. One such case recently under our care was characteristic in that the kidney was markedly enlarged, yet the collecting system architecturally was well within normal limits; functionally, the kidney had deteriorated severely. The diagnosis in such instances depends upon studies of the blood and bone marrow, but the characteristic sign of large renal mass with a normal appearing collecting system is indicative.

PERIRENAL TUMORS

Many tumors occur in close proximity to the kidney in children, including benign lipomas, fibromas, and mixomas and malignancies which are frequently derivatives of totipotent cells of germinal epithelium of the embryonic germinal ridge. Such tumors are rare and most frequently present as abdominal masses or perhaps in metastasis, and occasionally in the production of symptoms of urinary obstruction. Excretory and retrograde urography will delineate the obstructive effects of such extrarenal tumors, and by addending presacral carbon dioxide insufflation and translumbar arteriography, a separation may be made between the tumors and the kidneys themselves. In the surgical treatment of such lesions it is unwise to temporize with either an involved kidney or a severely damaged one, and the kidney should be removed with the tumor.

URETERAL TUMORS

Primary ureteral tumors are sufficiently rare in general to warrant publication of any report of a case, and malignant ureteral tumors are of such rarity that they must be considered almost nonexistent in the pediatric age group. We have had occasion to excise a polypoid, valvelike structure in a 17 year old boy; in all probability the majority of ureteral tumors in the young consist primarily of such mucosal hypertrophy. Ureteral tumors differ symptomatically in no way from those seen in adults, and the clinical signs center about the obstruction produced. Such obstructive findings are usually clearly delineated by urography.

BLADDER NEOPLASIA

Bladder tumors are rare in infants and children, and the malignant ones seem to be most frequently sarcomatous in nature. Polyps and papillomas have been fairly frequently reported and are usually construed as benign tumors. There is no authenticated case of true vesical carcinoma in the very young. The greater proportion of malignant bladder tumors are of mesodermal origin, and although subjected to an extremely variegated histologic classification, the greatest number seem to be of rhabdomyosarcomatous type, the sarcoma botryoides. Since most tumors are sarcomatous it is not unusual that they are found primarily in the trigonal region reflecting their mesodermal genesis. These tumors grow luxuriantly, and often it is difficult to ascertain their exact derivative location. Further confusion stems from the frequent projection into the bladder of prostatic growths and other perivesical tumor invasion. Morse and Jarman[5] in an analysis of 20 cases of sarcoma botryoides brought out the point that difficulty and delay in diagnosis occurs when, owing to the luxuriant growth of the polypoid structures, only a superficial biopsy specimen may be obtained and a benign diagnosis returned. Symptoms are similar to those seen in adult vesical carcinomas: frequency, dysuria, urgency, incontinence, and frequently pyuria and hematuria. Obstruction in the upper tracts occurs due to exuberant tumor growth and its derivation from the trigonal and periureteral areas. Vesical symptoms are soon supervened by upper tract infection and hydronephrosis; uremia is not infrequent. Insistence upon thorough urologic evaluation is necessary in any functional disruption of normal micturition and most assuredly in the presence of pyuria and hematuria. All too frequently the diagnosis is entertained subsequent to protrusion of tumor tissue at the meatus in the female or with the onset of urinary retention in the male. Evaluation includes urography for upper tract study and cystoscopy with adequate biopsy. Polypoid vesical

masses with a histologically benign appearance should be suspect of malignancy until completely disproven. Open bladder biopsy may be necessary in some instances.

The treatment of vesical neoplasms in the young undoubtedly should be more radical than has been proposed in the past. Polyps and papillomas may be easily treated by the endoscopic route and followed by careful and frequent reevaluation for recurrence. In dealing with the more malignant or extensive types of tumor one must consider the mortality statistics. More than 90 per cent of patients have died relatively soon. Significantly, among the survivors the histologic diagnosis was of a more benign type of tumor. It appears that a combination of delay in diagnosis, inadequate biopsy, and temporizing attempts at fulguration has been responsible for the infamous lack of success in the therapy of vesical malignancies. An improvement in survival rates may be achieved with the newer supervoltage radiation techniques, but until a clear-cut superiority is demonstrable we must continue to resort to surgical ablation of the tumor. These patients should be afforded earlier and more widespread excision of tumor-bearing tissue. When the diagnosis has been made, immediate preparation of these children for surgery should be carried out and be vigorous enough to allow for an extensive procedure. There are those who believe in immediate cystectomy yet hesitate to afford any type of urinary diversion other than cutaneous ureterostomy with the purpose in mind of lessening the surgical severity. In our hands it has been preferable to do a complete procedure and afford the patient definitive urinary diversion at the time of the ablation of the carcinoma. The procedures which we carry out involve extensive vesical and bowel surgery yet have been innocuous in respect to the postoperative course in these children. We believe that not only should radical cystectomy, prostatectomy, seminal vesiculectomy, and lymphadenectomy be performed but that definitive urinary diversion should be done at the same time. Diversion may consist of ureterosigmoid anastomosis with or without colostomy, the Lowsley procedure, or the transplantation of the ureters to an isolated segment of ileum. A combination of early radical surgery and adjunctive high voltage radiation may prove to be a more productive approach to the very discouraging problem of bladder tumors in children.

URETHRAL AND GENITAL TUMORS

Tumors of the urethra are fairly common in children. Small polyps often rise in the posterior urethra of young boys and occur with fair frequency in girls; they are usually considered to be benign lesions. Thorough evaluation of the entire urinary tract must be carried out to preclude their derivation from a more proximal urothelial tumor.

Penile and scrotal tumors are exceedingly rare in children. Suspicion thereof is often precipitated by the results of trauma.

TESTICULAR NEOPLASMS

Testicular tumors in children are uncommon yet have an interesting age incidence and histologic type. The vast majority are malignant and occur almost exclusively in the first 2 years of life. Histologically these tumors correspond more closely to the totipotent primordial sex cell than in the adult. Seminoma can almost be excluded in this discussion owing to its rarity. Most tumors can be classified as mixed tumors, embryonal carcinoma being frequent. These tumors are highly anaplastic and metastasize early. Usually patients are brought to diagnosis by symptoms referable to metastasis rather than to the primary tumor. The occurrence of hydrocele early sometimes may bring the testicular tumor to light prior to the occurrence of metastasis. Any scrotal mass should be carefully evaluated and persistently and frequently followed. Hernia, idiopathic hydrocele, and scrotal trauma are more frequent offenders, yet in view of the serious nature of a possible tumor it is justifiable to aspirate a hydrocele or explore a scrotum to make certain a testicular tumor does not lie within. Any unexplained enlargement or irregularity of a testicle should be immediately suspect, and subsequent to general physical evaluation, explored. The Aschheim-Zondek test should be utilized frequently because the majority of these tumors are of embryonal nature, capable of provoking the elaboration of chorionic gonadotropin. Tuberculosis and syphilis are sufficiently rare and accompanied by other signs of specific derivation as to be easily ruled out.

Testicular tumor in the young has generally a poor prognosis since the majority present with extensive metastases. Treatment in the pediatric age group differs in no way from that afforded adults. Even in the presence of metastasis immediate orchiectomy and intensive postoperative radiation has been of great palliative value. If metastasis is not present, immediate orchiectomy with opening of the retroperitoneal space and removal of the entire cord and such nodal tissues as are present is undertaken; postoperative radiation is employed.

Epididymal tumors are rare; of these perhaps the most frequent is the fibro-adenoma or adenomatoid tumor. These are not malignant, yet are frequently removed to obtain histologic verification.

PROSTATIC SARCOMA

Tumors of the prostate in the young are extremely rare, exceptionally malignant, and almost exclusively sarcomatous. In Lowsley's[4] review prostatic sarcoma was most common in the first decade of life and was seen to occur in infants as early as 4 months of age. The symptoms presented are most commonly those of lower urinary tract obstruction with infection and uremia. Prostatic sarcoma grows so rapidly and invades so widely that by the time symptoms occur rectal examination reveals a bony pelvis filled completely with a bulky indurated infiltrating mass of tissue. The rectal digital findings are characteristic and presage an early doom. It is difficult by rectal examination to determine that the prostate is the definite point of initial derivation, but the fact that the entire pelvis is so firmly infiltrated is suggestive. The diagnosis is based upon cystoscopy, cystography, and urethrography, with addended biopsy. The treatment, where surgical excision seems feasible, is one of radical cystectomy, prostatectomy, and seminal vesiculectomy with a type of ureteral transplantation commensurate with the architecture and function of the upper urinary tract. Again, it is desirable to carry out this procedure at one sitting. Prognosis has in general been poor, and the results of surgery and radiation have not prompted any hard and fast schedule of treatment.

WILMS' TUMOR

Of malignant abdominal tumors in childhood the Wilms' tumor, or renal embryoma, in the light of recent statistical analysis undoubtedly is the most common. Adrenal neuroblastoma has been relegated to second place. In the literature an inspiringly variegated histologic terminology was ascribed to the renal embryoma, yet as with testicular tumors a more succinct categorization has arisen from the realization that the multifarious histologic pictures are the result of tumor derivation from a primitive cell type which is totipotent in nature. It appears that these tumors originate at the blastema or nephrotome stage in only rare instances and most probably derive from earlier anlage, before the urogenital ridge has formed the nephrotome.

The period of greatest prevalence of Wilms' tumor is around the third year of age, and the greater number appear between 1 and 5. Since a goodly number of Wilms' tumors have been reported in adults it would seem that an embryonic cell rest may persist for long periods prior to its malignant activation. This may account for the occasional bilaterality of the tumor, and also may be responsible for late recurrence.

There seems to be no disparity of incidence between the sexes, nor is one kidney more susceptible than the other. There has been some indication that the tumor may be more prevalent in the white than the Negro. Bilateral involvement has not been particularly uncommon.

It is unfortunate that the first clinical sign of Wilms' tumor usually is an inescapably visible protuberance of the child's abdomen. Only in the very young, during the period of frequent maternal handling and medical scrutiny of the infant, are smaller tumors discovered. Occasionally should tumor necrosis or hemorrhage occur, symptoms accompanying a rapidly enlarging mass make the onset more dramatic.

Grossly, the tumor is initially fairly smooth but gradually becomes irregular. Very large tumors will displace other abdominal organs and symptoms can occur due to such displacement. There is a greater tendency for Wilms' tumor to expand anteriorly rather than posteriorly as is seen in neuroblastoma. The neoplasm may seem to be encapsulated on cursory inspection, but this is a very friable, connective tissue structure which offers no barrier to parenchymal invasion. Collecting system invasion is rare and accounts for the relative infrequency of hematuria as an early sign. Often the tumor surface is covered with dilated collateral blood vessels, giving evidence of possible vascular tumor extension.

Grossly the sectioned tumor is grainy, soft, yellowish, and may have areas of necrosis or hemorrhage therein.

Histologically, almost any derivation of mesodermal cell structures may be seen. Cartilage, bone, fat, or muscle sometimes may be seen and often more undifferentiated cells.

Metastasis is clinically evident late in Wilms' tumors in contradistinction to neuroblastoma, and is usually blood borne. The lungs, liver, and brain are most often afflicted, whereas neuroblastoma more frequently may be seen in the bones. Regional node metastasis in renal embryoma is not uncommon. Occasionally vascular extension may completely occlude the vena cava and produce venous obstructive symptoms.

SYMPTOMS OF RENAL EMBRYOMA

The symptomatology referable to Wilms' tumor is not striking considering the usually large size of the tumor when the diagnosis is first suspected. Mass is the most common first sign. Pain is more frequent in the adult Wilms' tumor but occasionally is seen in children, often derived from metastases. Hematuria is uncommon and occurs usually only quite late in the course of the disease. Hypertension has been described as almost constantly concomitant or infrequently so depending upon the series analyzed. In a

review of 59 embryomas Johnson and Marshall[3] found only an 8 per cent incidence of hypertension. Varicocele occasionally can be seen in the presence of venous obstruction. Symptoms relative to displacement of other structures usually are precursors of a rapid downhill course. Albuminuria is fairly frequent, as is urinary infection. Other nonspecific findings relative to neoplasia in general are frequently seen. It is apparent that strides must be made in the earlier discovery of renal tumors in children. Only intensive publicity will increase general awareness of the early clinical signs of embryoma, and thus bring more patients to early diagnosis. Constant emphasis upon the importance and prevalence of renal tumors in the young is necessary. Any abdominal mass in a child must be brought to diagnostic fruition as quickly as possible, and thus a complete urologic survey should be begun immediately. Less indicative diagnostic procedures must await the ruling out of a kidney tumor.

Wilms' tumor is usually movable, fairly firm, and more lobular than nodular. Palpation should be infrequent and gentle. A tendency toward softness may suggest hydronephrosis, which may be concomitant, of course. The texture of neuroblastoma is often more nodular and granular. Conjecture is fruitless, and excretory and retrograde urography should be undertaken immediately. In most instances excretory urograms will outline the tumor and assure one as to the status of the other kidney. Not infrequently, owing to renal functional deterioration or to incomplete filling, retrograde urography will be mandated. Cystoscopy and retrograde studies should not be withheld if any doubt whatsoever exists as to the nature of the problem.

UROGRAPHIC CHARACTERISTICS OF EMBRYOMA

The characteristic roentgen findings are those of displacement of the pelvis and calyces with attenuation of the collecting system sometimes to the point of disruption between various portions, and the production of dilatation from compression by the tumor mass. Often the renal outline will be well visualized and the entire mass clearly delineated. At times no calyceal distortion is seen, but displacement of the kidney may occur as a result of the location of the tumor in one pole or the other. In advanced tumors there may be obliteration of entire segments of the collecting system. In most instances when the diagnosis is not clear from the excretory urogram, retrograde filling will delineate changes characteristic of parenchymal neoplasm. Once the diagnosis of tumor is made, surgical exposure is mandated.

In a differential analysis of abdominal tumor in the child only three entities are commonly considered: hydronephrosis, Wilms' tumor, or neuroblastoma of the adrenal gland. Excretory and retrograde urography done immediately can easily distinguish between these three. Neuroblastomas more frequently will appear in the posterior loin but when extremely large may be identical in appearance with Wilms' tumor. Pyelographically, neuroblastoma more commonly will cause a downward displacement of the kidney with compressive changes relative solely thereto. Neuroblastoma less frequently involves the calyceal system, and often a definite distinction may be made on a plain film between the adrenal mass and the renal outline. An invasive neuroblastoma occasionally may produce pyelograms identical with those of Wilms' tumor, and only upon exploration and histologic study will the differential diagnosis be made. The predilection of neuroblastoma for early bone metastasis is sometimes a guide. Hydronephrosis is rarely a differential problem subsequent to urographic study. Polycystic renal disease if clinically evident in the younger age group is most commonly a bilateral disease, and the total involvement of the collecting system is characteristic. Perirenal tumors occasionally may simulate the urographic picture of Wilms' tumor, but the pyelograms are usually sufficiently bizarre as to suggest lymphosarcoma or Hodgkin's disease. When the pyelographic picture is not characteristic of Wilms' tumor or neuroblastoma and in the rare instances in which splenic enlargements are primary, hematologic studies and further diagnostic evaluation usually will reveal the true nature of the problem. In any instance when the picture remains unclear, exploration should be undertaken.

THERAPY IN RENAL EMBRYOMA

In respect to treatment, there has been recently a more general acceptance of the Boston Children's Hospital technique of emergent diagnostic effort coupled with the most prompt surgical removal compatible with the patient's general condition. The primary goal of surgical exposure is early ligation of the vascular pedicle and the institution of immediate postoperative radiation. In view of the 40 to 50 per cent 2 year survival rate which has accrued from this type of management persistence in it is warranted until a significant number of patients have been treated with the newer preoperative radiation techniques. It is possible that a short course of intensive preoperative radiation may produce better statistical results. Advances in preoperative preparation, anesthesia, fluid balance, and the adjunct of antibiotics obviously have contributed to the increasingly satisfactory statistics. Minimal preoperative palpation of the tumor and early pedicle ligation as

well have added much to the increase in survival rate.

Surgical techniques at present aim at a more atraumatic approach to the tumor achieved by transabdominal or transthoracic methods and allowing for wider exposure of the tumor area prior to any manipulation of the neoplasm itself. A more radical removal of tissue is additionally helpful in preventing local recurrence. That radiation is a potent weapon in the treatment of Wilms' tumor can be construed from the case of Gross and Neuhauser[2] wherein a child with bilateral tumor was alive some 14 years after nephrectomy and roentgen therapy. The hazards of radiation therapy are relative to the effect on the hemopoietic system; complete fibrous replacement of bone marrow may occur with excessive amounts of radiation.

Regarding prognosis, the vast majority of statistics are based on a 2 year survival rate, and it is obvious that a great many of the children who are then alive may show evidence of tumor 5 or 10 years subsequent to the nephrectomy. Johnson[3] reported that 1 of his 49 patients is alive 8 years after roentgen-ray therapy alone. Of his series of 59 Wilms' tumors, only 14 patients are living. Feeney[2] reported 5 of 14 children who were alive after 2 years; only 3 were alive after 5 years, and 1 of these was known to have tumor. Three of Feeney's cases were bilateral, and 4 of Johnson's.

In our hospital, 16 Wilms' tumors were seen between 1947 and 1957, and of these only 2 patients are still alive.

It seems that the average survival rate for 2 years aside from the Boston Children's Hospital group most probably would be between 15 and 20 per cent. A 10 year survival rate is difficult to ascertain, yet sporadic reports reveal a continuing decimation of those who have survived 2 years. It appears that the eventual cure rate would not exceed 10 per cent. Johnson[3] and others have employed intravenous nitrogen mustard in a dosage of 0.4 to 0.8 mg. per kilogram of body weight during the immediate postoperative period. This coupled with radiation therapy may be productive of somewhat better tumor ablation.

Renal carcinoma in its diagnosis and treatment varies little from that of Wilms' tumor, but is of most infrequent occurrence in childhood. Beattie,[1] reporting a case of carcinoma in a 7 year old girl, mentioned the fact that only 4 are in the American Tumor Registry and cited 2 others seen subsequent to his report. They differ in no way from the adult type of renal carcinoma. In view of the possibility that postoperative radiation is of value in the hypernephroid tumor, it would seem reasonable to afford children so afflicted such radiation.

CONCLUSION

In respect to genitourinary neoplasms in children, the approach must be one of discovery of renal tumors when they are small, by mandating immediate and complete urologic study should any suggestive urinary tract symptomatology occur. It is only with increasing publicity that cases more suitable for cure may be found.

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Transfusions Number 4,500,000

Blood transfusions numbered more than 4,500,000 during 1956, the Joint Blood Council has estimated. These transfusions were given to nearly 2,000,000 Americans, and approximately 5,000,000 pints of blood were collected through various agencies during the year.

A survey conducted by the council and reported in the November 2 issue of the *Journal of the American Medical Association* indicated that blood from voluntary unpaid donors provided 36 per cent of blood collected; American Red Cross regional collection centers provided 38 per cent; commercial blood banks, 11 per cent; nonhospital community blood banks, 9.3 per cent; hospitals that furnish blood to other hospitals, 4 per cent; and directly paid donors, 2 per cent.

Pain Relieving Drug May Prove Successful

Research results on normorphine indicate that there soon may be success in finding safer and better analgesics. In recent experiments this drug has proved active in relieving pain and caused relatively mild side reactions in animals. While not free of addiction liability, it showed in addiction studies in human beings distinct advantages over other analgesics.

Scientists at the Merck Institute for Therapeutic Research, Rahway, N. J., found that although normorphine is less potent in relieving pain in dogs than morphine, the dosage could be increased to give it equal potency without increasing ill effects.

Human studies at the United States Public Health Service Addiction Research Center at Lexington, Ky., showed only relatively mild signs of abstinence when normorphine treatment was stopped. Side reactions were considerably milder than from morphine.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-22, 1958 (Executive Council, Jan. 19, 1958). Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

Current Meetings

DECEMBER

American Medical Association, Clinical Meeting, Philadelphia, Dec. 3-6, 1957. Dr. David B. Allman, Atlantic City, Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, Los Angeles, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Private Clinics and Hospitals Association of Texas, Dallas, Dec. 14-15, 1958. Dr. R. D. Holt, Meridian, Pres.; Mr. Bill Schumacher, Box 383, Sherman, Executive Secy.

Texas Academy of Internal Medicine, Houston, Dec. 7-8, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas State Board of Medical Examiners, Fort Worth, Dec. 5-7, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy; Miss Luanna Knox, Assistant Secretary.

JANUARY

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Society of Pathologists, Dallas, Jan. 25-26, 1958. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, Box 57, Dallas, Secy.

Twelfth District Society, Corsicana, January 14, 1958. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.; S. E. Cockrell, 202 W. French Place, San Antonio, Exec. Secy.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. Carl E. Arbesman, Buffalo, N. Y., Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of General Practice, Dallas, March 24-27, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 12-17, 1958. Dr. Leroy A. Schall, Boston, Pres.; Dr. W. L. Benedict, 15 Second St. S.W., Rochester, Minn., Secy.

American Academy of Pediatrics, New York, April 21-23, 1958. Dr. Stewart H. Clifford, Brookline, Mass., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.

American Association for Thoracic Surgery, Boston, May 16-18, 1958. Dr. Brian Blades, Washington, D. C., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Edgewater Park, Miss., April 23-25, 1958. Dr. George F. Cahill, New York, Pres.; Dr. W. J. Engel, 2 East 54th, New York 22, Secy.

American Association of Obstetricians and Gynecologists. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 29-31, 1958. Dr. L. T. Coggeshall, Chicago, Pres.; M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Oval R. Withers, Kansas City, Pres.; Dr. Giles A. Koelsche, Mayo Clinic, Rochester, Minn., Secy.

American College of Chest Physicians, San Francisco, June 18-22, 1958. Dr. Burgess L. Gordon, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology, New Orleans, Oct. 20-28, 1958. Dr. C. Wilmer Wirts, Philadelphia, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Richard A. Kern, Philadelphia, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5-8, 1958. Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Philadelphia, Aug. 24-29, 1958. Dr. Donald L. Rose, Kansas City, Kan., Pres.; Dorothea C. Augustin, 30 N. Michigan Ave., Chicago, Executive Secretary.

American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.

American Gastro-Enterological Association, Washington, D. C., May 30-31, 1958. Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society, Asheville, N. C., May 19-21, 1958. Dr. Howard C. Taylor, Jr., New York City, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Heart Association. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Chicago, Aug. 18-21, 1958. Mr. Tol Terrell, San Angelo, Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago 10, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, May 21-23, 1958. No 1957 meeting. Dr. Lawrence R. Boies, Minneapolis, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 16-18, 1958. Dr. Israel S. Wechsler, New York, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, White Sulphur Springs, W. Va., May 28-30, 1958. Dr. Walter S. Atkinson, Watertown, N. Y., Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27, 1958. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Atlantic City, N. J., May 8-9, 1958. Dr. A. Ashley Weech, Cincinnati, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.

American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E. Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, San Francisco, May 12-16, 1958. Dr. Harry C. Solomon, Boston 15, Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, St. Louis, Oct. 27-31, 1958. Roy J. Morton, New York 19, Pres.; Dr. Berwyn F. Mattison, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Pittsburgh, Pa., Oct. 19-24, 1958. Dr. Ralph S. Sappenfield, Miami, Pres.; Dr. J. E. Remlinger, Jr., Wilmette, Ill., Secy.

American Society of Clinical Pathologists, Chicago, Nov. 1-8, 1958. Dr. Harry P. Smith, New York, Pres.; Dr. Clyde G. Culbertson, 1040 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, New York, April 16-18, 1958. Dr. John H. Mulholland, New York, Pres.; Dr. William Altemeier, Christian R. Holmes Hospital 19, Cincinnati, Secy.

American Urological Association, New Orleans, April 28-May 1, 1958. Dr. William J. Baker, Chicago, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, San Francisco, April 10-19, 1958. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Philadelphia, May 18-23, 1958. Dr. William M. Morgan, New York, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Radiological Society of North America. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, New Orleans, Nov. 3-6, 1958. Dr. W. Kelly West, Oklahoma City, Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Tennessee, October, 1958. Dr. Frank Luton, Nashville, Pres.; Dr. Iverson O. Brownell, Greenville, S. C., Secy.

Southwest Allergy Forum, Shreveport, Feb. 23-25, 1958. Dr. H. Whitney Boggs, Shreveport, Pres.; Dr. J. D. Youman, 2021 Line Ave., Shreveport, Secy.

Southwest Regional Cancer Conference, Fort Worth, September, 1958. Dr. O. J. Wollenman, Jr., Fort Worth, Chm.; Mrs. Ira Frances Ball, 264 W. 11th, Fort Worth, Secy.

Southwestern Medical Association, Tucson, Ariz., Oct. 23-25, 1958. Dr. Louis G. Jekel, Phoenix, Pres.; Dr. Russell L. Deter, 1501 Arizona, El Paso, Secy.

Southwestern Society of Nuclear Medicine, Dallas, April 12-13, 1958. Dr. Jack G. S. Maxfield, Dallas, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Assembly, Shreveport, Sept. 18, 1958. Dr. James Gatline, Camden, Ark., Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

United States-Mexico Border Public Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

State

Texas Academy of General Practice, San Antonio, Sept. 22-24, 1958. Dr. G. W. Cleveland, Austin, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Air-Medics Association, Houston, April 20-21, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, Houston, April 20, 1958. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Houston, April 20, 1958. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association, Houston, April 20, 1958. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Geriatrics Society. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association, Houston, April 20, 1958. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Dallas, May 5-8, 1958. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Industrial Medical Association, Houston. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neurophychiatric Association. Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Opbthalmological Association, Houston, April 22, 1958. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Houston, April 21, 1958. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.

Texas Pediatric Society, Fort Worth, October, 1958. Dr. T. J. McIlhenney, Austin, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Physical Medicine and Rehabilitation Society, Houston, April, 1958. Dr. Odon F. von Werssowetz, Gonzales, Pres.; Dr. Edward M. Krusen, Baylor Hospital, Dallas, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Texas Society of Anesthesiologists, Houston, April 20, 1958. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Houston, April 20, 1958. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Plastic Surgeons, Houston, April 19, 1958. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, El Paso, April 6-7, 1958. Dr. J. Peyton Barnes, Houston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Houston, April 20, 1958. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association, Houston, March 27-29, 1958. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, P. O. Box 6158, Austin 21, Executive Director.

Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.

Second District Society, Lamesa, Spring, 1958. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Amarillo, April 5, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society, San Angelo, 1958. Dr. Fred D. Spencer, Brownwood, Pres.; Dr. W. Lacey Smith, 111 E. Harris, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, 1958. Dr. Foy Moody, Corpus Christi, Pres.; Dr. Thelma Frank, 129 Rainbow Lane, Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Eighth District Society, Galveston, October, 1958. Dr. John H. Childers, Galveston, Pres.; Dr. M. Warren Hardwick, Angleton, Secy.

Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.

Tenth District Society. Dr. B. F. Pace, Beaumont, Pres.; Dr. W. J. Poshataske, Silsbee, Secy.

Eleventh District Society. Dr. George M. Hilliard, Jacksonville, Pres.; Dr. Phillip W. Taylor, 833 S. Beckham, Tyler, Secy.

Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. Charles Wise, Naples, Pres.; Dr. George Bennett, 402 S. Bolivar, Marshall, Secy.

Clinics

Blackford Memorial Cancer Lectures. Dr. R. G. Gerard, 509 S. Mirick, Denison, Cbm.

Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Executive Offices, 433 Medical Arts Bldg., Dallas 1.

New Orleans Graduate Medical Assembly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 18, 1958. Dr. J. B. Hathorn, Jr., 1500 8th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklaboma City, Oct. 27-29, 1958. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 21-23, 1958. Dr. Cbarles D. Reece, Pres.; Dr. C. Forrest Jorns, Secy., Exec. Office, 412 Jesse Jones Library Bldg., Houston 25.

State Tumor Conference, Wichita Falls, April 12, 1958. Dr. Edwin C. Bebb, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences, April, 1958. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Ratliff, Chief Clerk, 303 East Seventb, Austin.

MEDICOLEGAL NOTES

Autopsies

A subject which frequently gives rise to various legal questions is the one of autopsies performed by physicians. This undoubtedly is brought about because physicians of Texas are well aware that liability can arise from performing an autopsy without proper authorization.

A frequent problem deals with a situation in which a physician has been called in by a justice of the peace to perform an autopsy. After the autopsy has been performed, it is discovered that the order of the justice of the peace was void or invalid. The question then arises: Does the fact that this order of the justice of the peace is declared void result in liability on the part of the physician? This question can be answered by citing Article 970a of the Code of Criminal Procedure:

> Any physician duly licensed under the laws of the State of Texas to practice medicine, who, when an autopsy is ordered by a Justice of the Peace, performs the autopsy in the good faith belief that the order of autopsy is a valid order, shall not be held liable for damages in event it should be determined that the order of autopsy made by the Justice of the Peace is for any reason invalid.

As can be seen from this section of the statute, so long as the physician performs the autopsy in a good faith belief that the order of autopsy is a valid order, no liability shall result in the event the order is declared invalid or void.

Another question, and one which often arises in situations involving autopsies, deals with consent. In these cases, consent is essential because of a lack of proper grounds for the ordering of an autopsy. One of the reasons for the autopsy is to further medical knowledge. The first step that must be taken before such autopsy is performed is to obtain the consent of the appropriate person to perform such autopsy. Unless this is done, it may well result in liability on the part of the physician. This liability would be based upon an action for damages for the mutilation of the body of the deceased, and the law recognizes that the next of kin of the deceased have such an interest in the deceased as would support an action for damages. Such consent can be either oral or written, but I am of the opinion that it is advisable the consent be in writing. This would be for the further protection of the physician in the event that at some later date it was claimed no such consent had been given or that there had been a misunderstanding as to what procedure was to be performed.

Still another question which presents itself in regard to obtaining this consent is: Who is authorized to give such consent? Article 970b, Code of Criminal Procedure, sets forth the proper persons to give this consent and in the order that they shall be authorized to give such consent. In the case of a

Married person
1. Surviving spouse
2. If no surviving spouse
   a. Any child of the marriage
   b. In event child is a minor
      (1) Guardian of such child
      (2) If no guardian, court having jurisdiction of the minor
3. If no surviving spouse or child, then one allowed to give such permission in the case of an unmarried person

Unmarried person
1. Father
2. Mother
3. Guardian
4. Next of kin
5. In absence of these
   a. Any natural person assuming custody of and responsibility for burial
   b. If two or more assume custody, consent of one will be sufficient

The main points to be remembered in cases in which the autopsy is for the furtherance of medical knowledge and not upon the order of a justice of the peace is that consent is essential to protect the physician from liability, it is preferable to have such consent in writing, and the proper person should give the consent, this being set forth by Article 970b.

—PHILIP R. OVERTON, LL.B., Austin.

EDUCATION

Southwestern Medical School

Dr. P. O'B. Montgomery, associate professor of pathology at the University of Texas Southwestern Medical School, Dallas, and director of the cell research project, recently accepted a $15,000 contribution made to the school by the Ladies Auxiliary to the Veterans of Foreign Wars. The contribution, presented at the auxiliary's convention in Miami, was given for research studies of living cancer cells.

New faculty members at Southwestern include Dr. Robert Lee Stubblefield as head of the Department of Psychiatry and Dr. Richard T. Smith as associate professor of pediatrics. Dr. Smith will do research in immunity in infants and children under a grant as a senior investigator sponsored by the National Arthritis and Rheumatism Foundation.

Enrollment at Southwestern now totals 387 full time regular students, of which 105 are freshmen, 93 sophomores, 96 juniors, and 93 seniors, including 1 special.

A survey of nursing needs and resources in Texas, sponsored by the Board of Nurse Examiners, Texas Graduate Nurses Association, and Texas League for Nursing in cooperation with the Texas Commission on Patient Care, has been granted $5,000 by Southwestern Medical Foundation, half of the sum needed for the year-long study. The survey will be concerned with the present number of nurses in all areas of service, minimum number needed for each area, future supply, and areas of nursing service for further study to determine best utilization of nursing skills.

Medical Art Degree Offered Only at Southwestern

Recognition of Lewis B. Waters, head of the Department of Medical Art at Southwestern Medical School of the University of Texas, Dallas, has come through his election as president of the international Association of Medical Illustrators. In 1945, Southwestern Medical School established the world's first course of study leading to the master of medical art degree under the direction of Professor Waters.

All students entering Southwestern for the 2 year art course must have a college degree or its equivalent. At the school, students study anatomy, histology, pathology, and physiology, as well as medical photography, medical exhibit work, and other drawing techniques. They learn to depict all parts of the body with pen and ink, water color, tone, dry brush, and charcoal. Students must know all parts of human anatomy, both normal and abnormal, for the artist must learn not only to copy a condition he sees, but to draw parts of the inner man he cannot see.

Students make several trips a year to a photoengraving plant in order to pass an examination on modern methods of engraving and duplicating so they will know how pictures are reproduced. They also learn how to make lantern slides and wax models. They are taught to handle movie and still cameras and to build three-dimensional exhibits. They often visit operations, make 3-minute sketches (art shorthand), and later complete the drawings in detail.

Eighteen men and women have taken the M.M.A. degree at Southwestern. Graduates occupy good jobs with publishing companies, with pharmacy companies, and in medical centers.

Mr. Waters, a graduate in pharmacy, wanted to be a doctor, but war service resulting in temporary poor health steered him into capitalizing on his ability in art. After completing a course in medical art at Johns Hopkins University and working briefly at the Army Medical Museum in Washington, Mr. Waters was brought to Dallas in 1926 as a member of the Baylor University College of Medicine faculty. When Baylor moved to Houston, he established the medical art department at Southwestern, where the first graduate under the master degree program, Miss Patricia O'Neill, now shares faculty chores with him as an associate professor.

The 1958 convention of the Association of Medical Illustrators will be held in Dallas next October.

Baylor University College of Medicine

Baylor University College of Medicine, Houston, recently was awarded grants totaling $229,318 by the National Institutes of Health. The grants were for 20 research projects being conducted by faculty members in the Departments of Anatomy, Anesthesiology, Biochemistry, Microbiology, Pathology, Pediatrics, Pharmacology, Physiology, Psychiatry, Radiology, and Surgery.

Baylor is one of the 25 colleges and universities selected to receive appropriations, made by the Markle Foundation during 1956-1957, for the purpose of supporting teachers and investigators to continue the Foundation's Scholar in Medical Science program. A sum of $750,000 was appropriated for these scholars. The Baylor scholars are Dr. Roger Guillemin, Dr. George C. Morris, Jr., and Dr. Harold Tivey.

An outstanding cardiac and thoracic surgeon of London, Sir Russell Brock, was guest of Baylor in November as the Taub Visiting Professor of Surgery. Sir Russell was knighted for his contributions to the surgery of heart valves and for his developments in lung surgery.

Postgraduate Courses

American Diabetes Association (Committee on Professional Education), Atlanta, Ga., January 22-24.—Diabetes and basic metabolic problems will be covered in the 3 day course, for which 20 hours' postgraduate credit will be given by the American Academy of General Practice. The fee for members of the American Diabetes Association is $40 and for nonmembers $75. Further information is available from the diabetes association, 1 East 45th Street, New York 17.

Anesthesiology, Houston, February 19-21.—Dr. William S. Derrick is the instructor in charge of the third annual course in anesthesiology for physicians and dentists presented by the University of Texas Postgraduate School of Medicine. Twenty credit hours will be given by the American Academy of General Practice; tuition fee is $45. Applications and inquiries should be directed to the school, Texas Medical Center, Houston 25.

Nine Investigators To Speak at Oklahoma Colloquy

The first Oklahoma Colloquy on Advances in Medicine will be held February 6-8 in Oklahoma City. The program, sponsored by the Baxter Laboratories, will be devoted to problems of fluid, electrolyte, and nutritional balance. It has been developed by the Department of Medicine and the Division of Postgraduate Medical Education of the University of Oklahoma.

Nine nationally prominent investigators will participate and present the results of original work from their laboratories. Guest speakers will be Dr. William E. Abbott, associate professor of surgery, Western Reserve University, Cleveland; Dr. Curtis Artz, associate professor of surgery, University of Mississippi, Jackson; Dr. John H. Bland, professor of medicine, University of Vermont Medical School, Burlington; Dr. Robert E. Cooke, professor of pediatrics, Johns Hopkins School of Medicine, Baltimore; Dr. Ben I. Heller, professor of medicine, University of Arkansas, Little Rock; Dr. Rachmiel Levine, chairman, Department of Medicine, Michael Reese Hospital, Chicago; Dr. John F. Mueller, assistant professor of medicine, University of Cincinnati, Cincinnati; Dr. Arnold S. Relman, associate professor of medicine, Boston University School of Medicine, Boston; and Dr. Robert Tarail, associate chief of medicine, Roswell Park Memorial Institute, Buffalo.

Registration will be open to all physicians. There will be a registration fee of $25. Members of the Armed Forces, interns, and residents may attend without charge. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City.

Freshman Medical Students Continue to Increase

More freshmen medical students were enrolled in American medical schools during 1956-1957 than ever before, according to reports made by the American Medical Association's Council on Medical Education and Hospitals. Students totaled 7,791 compared with 7,686 in 1955-1956.

The freshmen were part of 28,852 students enrolled in the 78 approved 4 year medical schools and 4 schools of 2 year basic medical science in the United States. The year 1956-1957 was the eighth consecutive one in which a new record in total enrollment was established, according to the report.

The schools, in addition to teaching medical students, taught more than 62,000 other undergraduate students in allied medical fields, as well as assisting in the education of interns and residents and practicing physicians doing postgraduate study. More than $200,000,000 was spent by these medical schools in 1956-1957.

TB Topics: Selection of Drugs in Treatment

Almost all therapy plans for tuberculosis include the use of antimicrobial drugs. Best results are obtained when a combination of two or more drugs is given continuously for a prolonged time; a drug should not be used alone unless other drugs are contraindicated.

Preliminary to therapy, efforts should be made to culture the tubercle bacilli and to determine drug susceptibilities. This is essential for patients whose sputum cultures remain positive after adequate treatment.

Streptomycin, aminosalicylic acid (PAS), and Isoniazid are the three most commonly used drugs. Although there is not complete agreement as to the optimum regimens, it appears that Isoniazid and aminosalicylic acid is slightly superior to streptomycin and Isoniazid; both of these are superior to streptomycin and aminosalicylic acid.

For more detailed information, the reader is referred to the *American Review of Tuberculosis and Pulmonary Disease* 72:408-413 (March) 1955, or *Diseases of the Chest* 32:346-351 (Sept.) 1957.

—Committee on Tuberculosis,
Texas Medical Association.

MEDICAL MEETINGS

Dr. Rouse Named President-Elect Of Southern Medical Association

Dr. Milford O. Rouse, past President of the Texas Medical Association, was named president-elect of the Southern Medical Association at its November 11-14 meeting in Miami Beach. This was the group's largest meeting in 51 years, with an unofficial total registration of 5,761, of which 3,133 were physicians. Dr. W. Kelly West, Oklahoma City, became president.

The organization's research medal went to Dr. Joseph M. Hill, Dallas, director of the Wadley Research Institute and Blood Bank and director of the Baylor University Hospital Laboratories.

Dr. Kenneth M. Lynch, president and dean of the faculty of the Medical College of South Carolina, received the association's distinguished service award.

Dr. Rouse, who was a founder of the Dallas Health Museum in 1946 and has been its secretary ever since, has been president of the Dallas Southern Clinical Society and is now chairman of the Texas delegation to the American Medical Association's house of delegates. He is a fellow and life member of the American College of Physicians, a member of the American Gastroenterological Association, and a diplomate of the American Board of Internal Medicine and of the Subspecialty Board of Gastroenterology.

He will assume his duties at the 1958 session of the Southern Medical Association, which will be held in New Orleans, November 3-6. The Dallas-Fort Worth area was selected as the meeting place for the 1961 session.

Texans who served as section officers at the meeting included Dr. Tate Miller, Dallas, gastroenterology; Dr. J. O. S. Holt, Jr., Dallas, general practice; Dr. Robert A. Wise, Houston, industrial medicine and surgery; Dr. Ellard M. Yow, Houston, internal medicine; Dr. Oscar O. Selk, Jr., Houston, physical medicine and rehabilitation; and Dr. J. Wade Harris, Houston, proctology. Dr. Martin L. Towler, Galveston, was chairman-elect in neurology and psychiatry. More than 20 physicians from Texas gave papers at the meeting.

Blood Banks Association Celebrates

Observing its tenth anniversary, the American Association of Blood Banks drew a registration of 863 at its meeting in Chicago, November 4-6. These represented 41 states and 8 foreign countries.

Dr. E. E. Muirhead, Dallas, outgoing president, presided over sessions of the society, which honored Miss Marjorie Saunders, also of Dallas, with the John Elliott award. Miss Saunders first envisioned the organization of a national blood bank association and served as its elected secretary until her resignation at the meeting just past. Baylor University Hospital, Dallas, which sponsored a blood bank institute in November, 1947, resulting in the development of the American Association of Blood Banks, received a citation which will be made permanent in a bronze plaque.

Karl Landsteiner awards, given annually for contributions to blood banking, were presented to Drs. R. R. Race and Ruth Sanger of London, guests at the meeting. These and the other awards were announced at a banquet for which Senator Barry Goldwater of Arizona was speaker. Past presidents were honored at another dinner.

It was voted to move the office of the association to Chicago in view of Miss Saunders' resignation; the move was expected to be completed by January 1.

New officers include Dr. Oscar B. Hunter, Jr., Washington, D. C., president, and Dr. John B. Alsever, Phoenix, Ariz., secretary. The only Texan currently serving as an official is Miss Jean Stubbins, Galveston, a district director.

Southwestern Medical Group Elects

Dr. Russell L. Deter, El Paso, was elected secretary-treasurer of the Southwestern Medical Association at the October 9-11 meeting in El Paso. Other officers include Dr. Louis G. Jekel, Phoenix, Ariz., president; Dr. A. R. Clauser, Albuquerque, N. Mex., president-elect; and Dr. Wendell Peacock, Farmington, N. Mex., vice-president.

Speakers included Dr. William Parson, University of Virginia School of Medicine, Charlottesville, medicine; Dr. Oscar Creech, Jr., Tulane University School of Medicine, New Orleans, surgery; Dr. E. E. Muirhead, University of Texas Southwestern Medical School, Dallas, pathology; Dr. Frederick C. Bost, University of California School of Medicine, San Francisco, orthopedic surgery; Dr. J. S. De Tar, Milan, Mich., general practice; Dr. Robert A. Hingson, Western Reserve University, Cleveland, anesthesiology; Dr. Howard P. House, University of Southern California School of Medicine, Los Angeles, otolaryngology; Dr. Phillips Thygeson, University of California School of Medicine, San Francisco, ophthalmology; Dr. Edward A. Banner, Mayo Clinic, Rochester, Minn., obstetrics and gynecology; and Mac F. Cahal, executive secretary of the American Academy of General Practice.

Technical exhibits were on display during the meeting, and eight specialty organizations or sections convened.

Social activities included a party for which the Southwestern Surgical Supply Company was host and a coffee and luncheon sponsored by the Woman's Auxiliary to the El Paso County Medical Society.

Clinics and Hospitals Association Meets

The Private Clinics and Hospitals Association of Texas held its annual meeting in Dallas, December 14-15.

Speakers and topic areas included:

Licensed Vocational Nursing—Dr. Russell D. Holt, Meridian.
Blue Cross of Texas—Dr. Roy Lester and Bob Hawthorne, Dallas.
Legal and Legislative Problems—Dr. M. O. Rouse, Dallas; Dr. Howard O. Smith, Marlin; Philip Overton, Austin; and Bob Hawthorne, Dallas.
Clinic Group Practice of Medicine—Dr. Van Goodall, Clifton; Dr. L. L. Travis, Jacksonville; Carroll H. McCrary, Tyler; and Dr. Howard O. Smith, Marlin.
Hospital Accreditation—Dr. Joe Shepperd, Burnet; Henry Taylor, Dallas; and Tol Terrell, San Angelo.

Dr. A. Q. Sartain, professor of psychology at Southern Methodist University, Dallas, spoke at the luncheon.

North Texas-Southern Oklahoma Conference Features Five

The largest attendance thus far achieved by the North Texas-Southern Oklahoma Fall Clinical Conference was noted October 19 in Wichita Falls, when 205 registered for the program featuring Dr. Helen B. Taussig, Johns Hopkins Hospital, Baltimore; Dr. J. A. del Regato, Penrose Cancer Hospital, Colorado Springs; Dr. Carl A. Moyer, Washington University, St. Louis; Dr. Frank H. Krusen, Mayo Clinic, Rochester, Minn.; and Dr. Willis E. Brown, University of Arkansas School of Medicine, Little Rock.

In addition to the scientific program, guests saw the exhibits of 50 pharmaceutical companies, participated in a round-table luncheon, and attended a dinner dance.

The conference for 1958 is scheduled for October 18, again at the Wichita Falls Country Club. For that event Dr. J. B. Hathorn, Jr. is chairman; Dr. Kenneth Deets is reservation chairman; and Dr. Clinton Shaw, publicity chairman.

San Antonio Announces Medical Assembly Plans

The International Medical Assembly of Southwest Texas will be held January 27-29 in San Antonio with 17 guest speakers. A seminar on Sunday, January 26, will be presented by the San Antonio Division of the Post Graduate School of Medicine of the University of Texas for 6 to 8 hours of category 1 credit.

The guest speakers will be as follows:

Allergy—Dr. Stanley F. Hampton, chief of Allergy Clinic, Washington University School of Medicine, St. Louis.

Dermatology—Dr. Clarence Livingood, chief of dermatology, Henry Ford Hospital, Detroit.

Gynecology—Dr. N. W. Philpott, professor of obstetrics and gynecology, McGill University Faculty of Medicine, Montreal, Canada.

Internal Medicine—Dr. Demetrio Sodi Pallares, chief of Department of Electrocardiography, National Institute of Cardiology, Mexico City; Dr. F. Raymond Keating, Jr., professor of medicine, Mayo Foundation, Rochester, Minn.; Lt. Col. David L. Deutsch, chief of gastroenterology, Army Medical Service School, Brooke Army Medical Center, Fort Sam Houston.

Obstetrics—Dr. William F. Mengert, head, Department of Obstetrics and Gynecology, University of Illinois College of Medicine, Chicago.

Ophthalmology—Dr. Howard Naquin, associate professor of ophthalmology, Johns Hopkins University School of Medicine, Baltimore.

Orthopedics—Dr. LeRoy C. Abbott, professor of orthopedic surgery emeritus, University of California Medical School, San Francisco.

Otolaryngology—Dr. A. C. Furstenberg, chairman, Department of Otolaryngology, and dean, University of Michigan Medical School, Ann Arbor, Mich.

Pathology—Col. Frank M. Townsend, deputy director, Armed Forces Institute of Pathology, Washington, D. C.

Pediatrics—Dr. Lawson Wilkins, director of pediatric endocrinology, Johns Hopkins University School of Medicine, Baltimore.

Psychiatry—Dr. Francis J. Hamilton, assistant professor of psychiatry, New York Hospital, New York.

Radiology—Dr. Barton R. Young, clinical professor of radiology, Temple University School of Medicine, Philadelphia.

Surgery—Dr. Bentley P. Colcock, surgeon, Lahey Clinic, Boston; Dr. Warren Cole, head, Department of Surgery, University of Illinois College of Medicine, Chicago; Dr. C. Everett Koop, surgeon in chief, Children's Hospital of Philadelphia.

The formal program will be interrupted by informal sectional luncheons each day, and an array of technical exhibits will be displayed. All meetings and exhibits will be housed at the Gunter Hotel.

The entertainment schedule includes a refreshment and friendship party, a brunch and style show for the ladies, a frontier casino and buffet supper, a golf tournament, and a cocktail buffet.

Those interested may register by sending $20 to the International Medical Assembly of Southwest Texas, 202 W. French Place, San Antonio.

Austin Entertains Texas Ophthalmologists, Otolaryngologists

The thirty-second session of the Texas Society of Ophthalmology and Otolaryngology was held December 6-7 in Austin.

The scientific program was as follows:

OPHTHALMOLOGY

Friday, December 6

Dr. Weldon O. Murphy, Amarillo, Presiding

Uveal Malignant Melanomas—Dr. Max Baldridge, Texarkana.
Discussion: Dr. Edward D. McKay, Amarillo.

True Ptosis, Pseudo Ptosis, and Surgical Treatment—Dr. Rudolph Aebli, New York.

Care of Sharp Ophthalmological Instruments—Dr. Sam N. Key, Jr., Austin.
Discussion: Dr. J. L. Mims, Jr., San Antonio.

Central Inflammatory and Degenerative Disorders of the Fundus—Dr. Tullos O. Coston, Oklahoma City.

Saturday, December 7

Cataract Extraction—Dr. Tullos O. Coston, Oklahoma City.

Treatment of Senile Macular Degeneration by Transplantation of the Inferior Oblique Muscle—Dr. Ronald M. Burnside, Dallas.
Discussion: Dr. Oscar Marchman, Jr., Dallas.

Ocular Muscle Surgery—Dr. Rudolph Aebli, New York.

Marginal Dystrophy; Report of Case with Traumatic Rupture—Dr. Berton F. Frink, McAllen.
Discussion: Dr. Everett L. Goar, Houston.

OTOLARYNGOLOGY

Friday, December 6

Dr. E. King Gill, Corpus Christi, Presiding

Facial Fractures of Interest to Otolaryngologist—Dr. John M. Converse, New York.

Sphenoid Sinus—Dr. Lawrence T. Pulliam, Houston.
Discussion: Dr. John Barrett, Houston.

Surgical Treatment of Chronic Otitis Media for the Purpose of Hearing Improvement—Dr. Henry L. Williams, Rochester, Minn.

Hamartoma of the Trachea; Report of a Case with Review of the Literature of Benign Tracheal Neoplasms—Dr. Charles F. Engelking, San Angelo.
Discussion: Dr. William P. Anthony, Fort Worth.

Saturday, December 7

History of Tracheotomy—Dr. James Oliver Gooch, Midland.
Discussion: Dr. Tom Barr, Dallas.

Some Points of Interest in Corrective Nasal Plastic Surgery—Dr. John M. Converse, New York.

A Technique for Using Preserved Autogenous Skin in Otologic Grafting—Dr. Ben T. Withers, Jr., Houston.

Differential Diagnosis of Meniere's Disease—Dr. Henry L. Williams, Rochester, Minn.

The program included a luncheon for members, a ladies' luncheon, and dinner and dancing for members and their ladies on December 6.

Dr. James T. Robison, Austin, was chairman of the program committee and Dr. B. Palmer Woodson, Austin, was chairman of the committee on general arrangements.

Graduate Medical Assembly To Meet March 3-6

The twenty-first annual meeting of the New Orleans Graduate Medical Assembly will be held March 3-6, 1958, at the Roosevelt Hotel in New Orleans. The assembly has been officially approved for category 1 credit by the American Academy of General Practice. Thirty hours of formal credit will be allowed for attendance at this meeting.

Dr. Carleton B. Chapman, of Dallas, will be among the 18 guest speakers to participate in the program, which will include 54 informative discussions on many topics of current medical interest, in addition to clinicopathologic conferences, symposiums, medical motion pictures, round-table luncheons, and technical exhibits.

Following the meeting in New Orleans, arrangements have been made for a postclinical tour to Mexico City, Cuernavaca, Taxco, and Acapulco. The tour will leave New Orleans on Friday, March 7, and return March 18.

Details of the meeting and the postclinical tour are available at the office of the Assembly, Room 103, 1430 Tulane Avenue, New Orleans 12.

Guest speakers will include Dr. Chapman, cardiology; Dr. Herbert Rattner, dermatology, Chicago; Dr. Charles A. Flood, gastroenterology, New York; Dr. Robert A. Davison, general practice, Memphis, Tenn.; Dr. Lawrence M. Randall, gynecology, Rochester, Minn.; Dr. Bayard T. Horton, internal medicine, Rochester, Minn.; Dr. Perrin H. Long, internal medicine, Brooklyn; Dr. George N. Raines, neuropsychiatry, Washington; Dr. Robert H. Barter, obstetrics, Washington; Dr. Ralph O. Rychener, ophthalmology, Memphis, Tenn.; Dr. C. Leslie Mitchell, orthopedic surgery, Detroit; Dr. Frank D. Lathrop, otolaryngology, Boston; Dr. Arthur H. Wells, pathology, Duluth, Minn.; Dr. James Marvin Baty, pediatrics, Boston; Dr. Harold O. Peterson, radiology, Minneapolis; Dr. Jere W. Lord, Jr., surgery, New York; Dr. Claude E. Welch, surgery, Boston; Dr. Ormond S. Culp, urology, Rochester, Minn.

New Internal Medicine Society

The Amarillo Society of Internal Medicine, recently formed by the internists of Amarillo, meets each month for the purpose of studying scientific aspects of their specialty. The following officers were elected: Dr. E. K. Jones, president; Dr. Isadore Dravin, vice-president; and Dr. Wilbert E. Scott, secretary. Meetings will be held on the first Monday of each month.

Texas Academy of Internal Medicine

The Texas Academy of Internal Medicine met in Houston December 7-8, and the 13 speakers were from Baylor University College of Medicine, Houston. The scientific program was as follows:

Cardiac Tamponade with Particular Reference to the Mechanism of Pulsus Paradoxus—Dr. James K. Alexander.
Mechanisms of Currently Available and Experimental Diuretic Agents—Dr. Ralph V. Ford.
Nephrotic Syndrome—Dr. C. William Daeschner, Jr.
Experimental Leukemia—Dr. A. Kirschbaum.
The Hypothalamus and Obesity; Experimental Studies—Drs. R. Liebelt and J. Perry.
Aneurysms and Occlusive Disease of the Aorta; Analysis of 800 Cases Treated by Resection—Dr. Michael E. DeBakey.
Recent Advances in Heart Surgery—Dr. Denton A. Cooley.
Segmental Thrombo-Obliterative Disease of Branches of Aortic Arch—Dr. E. Stanley Crawford.
A New Physiologic Concept of the "Dumping Syndrome"—Dr. George Morris.
Protein in Response in Infection—Dr. Harold L. Dobson.
Melanocyte Stimulating Hormone—Dr. John M. Knox.
Clinical Pathological Conference—Dr. Ellard M. Yow, Moderator.

New Officers Elected by Harris GP's

Harris County Academy of General Practice elected the following new officers at its business meeting, November 11: Dr. William M. Sherrill, president-elect; Dr. Lawrence E. Carlton, vice-president; Dr. J. Winston Morrison, secretary; Dr. Vincent C. Bash, Jr., treasurer; and Dr. Haden E. McKay, member of the board of directors. These doctors will take office January 1, at which time Dr. Homer A. Taylor, Jr., will become president. All officers live in Houston.

Crippled Children Conference Emphasizes Rehabilitation

Nationally known authorities in the rehabilitation field gave new impetus to the nationwide movement of total physical rehabilitation at the 1957 annual convention of the National Society for Crippled Children and Adults, October 30-November 2 in Chicago.

Dr. Thomas L. Shipman, Los Alamos, N. Mex., an atomic scientist and leader of the health division of the Los Alamos Scientific Laboratory, spoke on the threats of crippling by radioactive fallout resulting from current and future nuclear tests. A toy fair demonstrated the therapeutic uses of toys in treatment of crippled children. A special session was devoted to the crippling effects of strokes and to the physical and psychological processes of rehabilitation.

Houston Neurological Society

The Houston Neurological Society will meet March 13 and 14 in Houston, and the first day will be devoted to a symposium on "Pathogenesis and Treatment of Parkinsonism." Individual contributions from local and visiting physicians and surgeons will be heard the second day, and all interested physicians are eligible to attend. There will be no registration fee, but advance notification of attendance should be sent to Dr. Claude C. Pollard, Jr., 410 Hermann Professional Building, Houston.

Texas Internists Meet in Detroit

Thirty-nine members of the Texas Club of Internists attended the organization's 1957 fall meeting held October 7-11 in Detroit. Various papers and panel discussions were presented by staff members of the club's host, Henry Ford Hospital. The entertainment program included a tour arranged by Ford Motor Company, cocktail parties, and special dinners.

New officers include Dr. C. M. Darnall, Austin, president; Dr. Don Warren, Waco, president-elect; and Dr. L. C. Carter, Port Arthur, secretary-treasurer.

Lackland Air Force Hospital Dedicated to Education

Dedication of the new Lackland Air Force Hospital at San Antonio to educational purposes was emphasized by Major General Dan C. Ogle, surgeon general of the United States Air Force, in his address at the $12,000,000 hospital November 16. General Ogle also mentioned the need of establishing a civilian medical school in San Antonio, a project San Antonio physicians and other citizens are pushing and one which the Texas Medical Association has approved.

A large group of military and civilian dignitaries were on hand for the dedication ceremonies at the 500 bed hospital, which has been in operation since Labor Day and for which plans to add another 500 beds already have been drawn.

Enlarging on his theme of medical education, General Ogle said in part:

> It is our ambition in the Air Force that our community hospitals scattered throughout the world each become in some measure an educational institution in which medical officers will have an opportunity of practicing their profession, and where they will enjoy an interchange of ideas between themselves and civilian specialist consultants of the community in which they are located. Only by such means can we maintain the high standards of medical care deserved by those in uniform, and only through continual education and training can we be assured of being professionally prepared for the exacting demand of national defense.
>
> . . . it is the duty of all men and women in health fields to become more knowledgeable in the science of medicine and health maintenance, because good health, good nutrition, good living conditions, and good minds provide the greatest resources of this country and the greatest hope for world peace.
>
> . . . War is a form of political-economic-social disease which like the maladies of the flesh can be avoided by continuous health precautions. Our ambitions and methods of attaining victory over disease are very much like our ambitions to attain victory over war itself. However, neither victory can be attained by wish fulfillment, but only by a constructive alliance between men of good will whose faith and trust in themselves, their country, and their God stimulate them to work and wisdom instead of inactivity, futility or complacency. . . . Like war itself, the diseases we have apparently conquered are lying dormant, ever ready to strike back at a relaxed or careless world that neglects attention to the continuing tasks of control.

The new Lackland Air Force Hospital, San Antonio, was dedicated November 16, with Major General Dan C. Ogle as the main speaker.

General Ogle went on to praise San Antonio as a growing center of clinical and military medical education. Mentioning other military medical installations in the city, he said:

> During the process of selecting a site for the new School of Aviation Medicine [construction for which is under way at Brooks Air Force Base], a heavily weighted factor served to keep San Antonio from a position of unquestioned first choice. We believed, and still believe, that our new School and research laboratories should be in the neighborhood of a first class medical school, that much could be gained by association between two such teaching and research institutions. There was no medical school here, but San Antonio was finally selected because of many overriding advantages and because we had faith that this city would one day have its own medical school. I hope it will come in the near future. It is a community and national need that should not be denied.

Personals

Dr. Michael E. DeBakey, chairman of the Department of Surgery, Baylor University College of Medicine, recently was appointed to the National Advisory Heart Council. He also has been awarded the International Society of Surgery's highest award, a medal and citation, for outstanding achievement for 1957. Dr. DeBakey and *Dr. Alvis E. Greer,* professor emeritus of clinical medicine at Baylor, participated in the interim session of the American College of Chest Physicians, December 2-3 in Philadelphia; Dr. DeBakey presented a paper and Dr. Greer was a discussion leader.

Dr. R. Lee Clark, Jr., Houston, was elected second vice-president of the Alumni Association of the Mayo Foundation in Rochester, Minn., in October.

Dr. Merton M. Minter, San Antonio, has had a newly published mystery book dedicated to him. Erle Stanley Gardner, in his "The Case of the Daring Decoy," urges more members of the medical profession to become interested in law enforcement, as Dr. Minter has, because "We need their sharp minds, their diagnostic skills, their seasoned judgment in the field of better law enforcement and the better administration of justice."

Dr. William T. Lhamon, head of the Department of Psychiatry, Baylor University College of Medicine, Houston, and *Robert Sutherland,* Ph.D., Hogg Foundation for Mental Hygiene, the University of Texas, Austin, participated in a meeting in Williamsburg, Va., in August in which ways in which the Southern Regional Program in Mental Health Training and Research might stimulate and facilitate research in the region were discussed.

Mrs. Frances Shipp Lawson, Lorena, daughter of *Dr. W. R. F. Shipp,* Lorena, and sister of *Dr. J. Ross Shipp,* Waco, died November 9 after a stroke.

Dr. F. J. L. Blasingame, soon to leave Wharton to become general manager of the American Medical Association, was honored at a banquet in Wharton on December 11 sponsored by a citizens' committee headed by former mayor Frank Haines. Limited to 300 because of facilities, guests

included Dr. David Allman of Atlantic City, President of the AMA; Dr. George F. Lull of Chicago, secretary and outgoing general manager of the AMA; and Dr. Denton Kerr of Houston, President of the Texas Medical Association.

Dr. Howard O. Smith, Marlin, spoke on ethics at an institute for medical record personnel conducted by the Texas Hospital Association's council on professional service at Waco on November 11.

Robert R. Lowdon of Fort Worth, president of the Stafford-Lowdon Company, which has printed the *Texas State Journal of Medicine* since 1909, died of a heart attack November 10.

Council to Aid Foreign Graduates

The Educational Council for Foreign Medical Graduates, which will carry out a comprehensive program for evaluating foreign medical school graduates, has opened its offices in Evanston, Ill.

The council will distribute to foreign medical graduates around the world information regarding the opportunities and difficulties involved in coming to the United States on an exchange student visa in order to take training as an intern in a hospital, or coming on an immigrant visa with the hope of obtaining a license to practice.

For 2 years, the council will be supported by the American Medical Association, the Association of American Medical Colleges, the American Hospital Association, the Federation of State Medical Boards of the United States, the Kellogg Foundation, and the Rockefeller Foundation. A 10 member board of trustees—two representatives from each of the four sponsoring agencies and two persons representing the public at large—will make up the council.

Doctors Needed for Overseas Missions

The Board of Missions of the Methodist Church has announced a need for 20 doctors, 10 women and 10 men, to serve as medical missionaries in 10 countties overseas in 1958. The openings include internal medicine, surgery, general practice, public health, gynecology, pathology, and radiology. Anyone interested may write the office of Missionary Personnel, 150 Fifth Avenue, New York 11.

Texas Patient Care Commission Closes Office November 1

The Texas Commission on Patient Care closed its office at Austin on November 1, and the Texas Medical Association and Texas Hospital Association staffs will share the responsibility for future activities of the commission.

The commission, which failed to obtain sufficient financial support to continue operations at the level at which it was conducted in 1956 and 1957, originated in 1954 following establishment of a national group in 1947. It was organized by representatives of Texas Medical Association, Texas Hospital Association, Texas Graduate Nurses Association, and Texas League for Nursing and was called the Texas Joint Commission for the Improvement of the Care of the Patient. At that time, it was concerned primarily with plans for patient care improvement through expanded and improved nursing care. In 1956, the name of the commission was changed to Texas Commission on Patient Care.

After 2 years of limited operation, the commission sought the financial support of Texas Medical Association and Texas Hospital Association to underwrite an expanded scope of operation until it could become self-supporting. It then was able to employ an executive secretary and to expand its activities from the nursing field to all the paramedical fields.

Various approaches were developed to acquaint high school children and adults with the opportunities available in the fields of work associated with patient care. These included workshops for vocational guidance councilors, career day programs, training conferences, radio and television programs, newspaper articles, and the installation of special courses in junior colleges and high schools. A publication, "Deep in the Health of Texas," was printed and widely distributed.

Future activities of the commission will be conducted through the staffs of the Texas Hospital Association and the Texas Medical Association. These activities will consist of advice and counsel to paramedical groups seeking to improve and expand training and opportunity for their specialty. Assistance will be given persons of high school age seeking information about the paramedical fields, and efforts will be made to publicize opportunities for careers in health work. Although Texas Medical Association and Texas Hospital Association will cooperate in these efforts, the major responsibility will lie with the organization most directly concerned with the particular project.

Inquiries about the commission should be directed to the Texas Medical Association, and those matters of concern to the Texas Hospital Association will be forwarded to it.

Results of Texas Commission on Patient Care Survey and 20 Year Projection for Health Career Needs in Texas Hospitals.

	Have 1957	Need 1957	Have 1977	Need 1977
Dietitian	250	300	450	550
Medical record librarian	125	190	325	500
Physical therapist	175	265	200†	300
Occupational therapist	115	160	320	500
Medical social worker	170	255	190*	300
Licensed vocational nurse	5,900	6,900	12,000	14,000
Registered nurse	10,000	12,500	20,000	25,000
X-ray technician	300	400	300‡	1,400
Medical technologist (certified by American Society of Clinical Pathologists)	635	850	1,050	1,400
General hospital beds (4.5 beds per 1,000 population)	27,000	28,000	34,000	54,000

It takes 10 student nurses enrolled to cause an increase of 3 registered nurses three years later in Texas hospitals. There is a current indicated shortage of 2,500 registered nurses, according to the current Texas Commission on Patient Care survey, as incorporated with data published in the American Hospital Association's *Hospitals* (Administrators' Guide issue). If this need is to be filled three years from now, 7,500 student nurses would have had to be enrolled this year. In order to fill the growing demands for Texas professional nurses, 50,000 student nurses must be enrolled over the next 20 years or an average enrollment of 2,500 students per year. The highest enrollment year was 1954 with 1,304 students, but there has been a steady decrease thereafter. At this rate the situation 20 years from now will be twice as bad as today.

*Present trend indicates a decrease of 5 per year but should rise of necessity with rest of United States.

†Present trend is stationary but Texas schools graduate an average of 32 per year.

‡Present trend is decrease in registered technicians with a corresponding increase in nonregistered technicians.

Government Spends $2,500,000,000 on Health

The United States is spending approximately $2,500,000,000 on health programs during the current fiscal year, about the same as last year, according to the American Medical Association. At least 23 United States cabinet departments and independent agencies are engaged in some medical operations, and at least 79 separate activities are worthy of listing.

The relatively new Department of Health, Education, and Welfare heads the list of all departments in health spending with a total of $849,394,800. This department tops the Veterans Administration spending $849,374,000, and Defense Department spending $702,000,000, which previously have been at the top of the list.

Disability payments in which the United States participates—not included in the other federal costs because some money comes from other sources—are about $3,200,000,000 this year.

Workshop Held at Shepperd Hospital

Staff members from 12 private clinics and hospitals attended a workshop of the Private Clinics and Hospitals Association of Texas at the Shepperd Memorial Hospital and Clinic in Burnet in November. The objective of the meeting was to assist hospitals in their effort to meet requirements for accreditation by the Joint Commission on Hospital Accreditation. The Shepperd Memorial Hospital was used as a model of the accredited institutions.

Obstetric Board Exams to Be Given

The part II examinations, oral and clinical, for all candidates of the American Board of Obstetrics and Gynecology will be conducted at the Edgewater Beach Hotel, Chicago, by the entire board May 7-17, 1958. Each candidate will receive formal notice of the exact time of his examination. Candidates who participated in the part I examinations will be notified of their eligibility for the part II examinations as soon as possible.

Vaccination Certificates Revised

The International Certificate of Vaccination form was revised in January, 1957, according to the Department of Health, Education, and Welfare of the Public Health Service. Officials have requested that only the revised certificate be distributed to the public.

70.2 Average Age for Wage Earner

The average life expectancy of America's wage-earners and their families continues to increase, according to statisticians of the Metropolitan Life Insurance Company. The company reports that the average length of life among Metropolitan's industrial policyholders reached 70.2 years in 1956, a slight gain over the previous year.

The statisticians said that the average length of life of the industrial policyholder has increased more rapidly than that of the general population of the United States.

MEMORIAL LIBRARY

The Hippocratic Oath

We have developed the medical profession into a highly technical machine through the years. However, no matter how scientific and advanced our thinking becomes, it all goes for naught if we wander, even one iota, from a code older than our present concept of time measurement. The entire code of medical practice is deeply imbedded in the rock of the so-called Hippocratic Oath, a quiet, venerable treatise.

Hippocrates, the early Greek physician, actually lived about 4 centuries before the birth of Jesus Christ. He undoubtedly was possessed of a tremendous insight as to the workings of the human mind and a steadfast sense of values. He set forth many principles governing the manner in which the practice of medicine should be conducted. He was the first to separate medical practice from witchcraft and develop it into a clinical science and art. Strangely enough, one of his greatest precepts was that of treating the patient as a whole—a so-called new concept in medicine today. No manuscripts listing his principles written by him has been unearthed, but there has been a vast amount of medical lore and literature attributed to him and known as the "Hippocratic Collection." The exact origin of these works is obscure, but the trend is to credit them to Hippocrates. Our present day Hippocratic Oath is a small excerpt from this collection.

The Hippocratic Oath, as we see it written, was first translated into English in the sixteenth century and presents these salient vows:

1. To teach the art to those qualified to receive it and remain faithful to one's own teachers.
2. To practice medicine only for the utmost benefit of the patient.
3. To do nothing harmful to the patient.
4. To produce no criminal abortion.
5. To live a life of honesty and purity.
6. Never to use any opportunity for evil or seduction.
7. To leave certain procedures to those in specialized fields.
8. To maintain professional secrecy.

Each is a part of our present day code of ethics. They are principal reasons for the rise of the medical profession to an exalted place in society, and failure of a few doctors to live up to them has cost us dearly in public esteem in the past few years.

It is high time we took a few minutes to read once again the Oath in its entirety. It will never fail to inspire us to greater efforts. There is no doubt but that a return to a study of many of the works of Hippocrates is a major step on the road back to the fully integrated and properly humanized practice of medicine.

Suggested Readings

Adams, Francis: The Genuine Works of Hippocrates, Baltimore, Williams and Wilkins, 1939.

Edelstein, Ludwig: Professional Ethics of Greek Physicians, Bull. Hist. Med. 30:391-419 (Sept.-Oct.) 1956.

Major, Ralph H.: Hippocrates and Isle of Cos, Bull. Soc. Med. Hist. Chicago 5:323-394 (June) 1946.

Mayer, C. F.: Hippocratic Oath, Pledge of Geneva, and ABC Warfare, Mil. Surgeon 111:369-370 (Nov.) 1952.

Piers, F.: Hippocratic Medicine, East African M. J. 34: 57-65 (Feb.) 1957.

Ratner, Herbert: Hippocrates Has Vital Meaning for Physicians, GP 8:93-99 (Aug.) 1953.

Rosenthal, Franz: Ancient Commentary on Hippocratic Oath, Bull. Hist. Med. 30:52-87 (Jan.-Feb.) 1956.

Taylor, T. R.: Annotation of Oath of Hippocrates, Rocky Mountain M. J. 52:354-356 (April) 1955.

Temkin, Owsei: On Interrelationship of History and Philosophy of Medicine, Bull. Hist. Med. 30:241-251 (May-June) 1956.

Wilder, Penfield: Aegean Cradle of Medicine, Tr. & Stud. Coll. Physicians Philadelphia 24:22 (June) 1956.

—W. D. THAMES, JR., M.D., Lufkin.

THE OATH

I swear by Apollo the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this Oath and this stipulation—to reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this art, if they shall wish to learn it, without fee or stipulation; and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others. I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked, nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my Art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further, from the seduction of females or males, of freemen and slaves. Whatever, in connection with my professional practice or not in connection with it, I see or hear, in life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the art, respected by all men, in all times! But should I trespass and violate this Oath, may the reverse be my lot!

GIFTS TO THE LIBRARY

Dr. George E. Clark, Jr., Austin, 309 journals.

Dr. James M. Graham, Austin, 81 journals.

Dr. Paul Guggenheim, Council Bluffs, Iowa, 2 books; 23 reprints.

Dr. John R. Harris, Bronte, 586 journals.

Dr. L. C. Heare, Port Arthur, 1,071 journals.

Dr. Henry L. Hilgartner, Austin, 24 journals; reprints.

Dr. S. N. Key, Jr., Austin, 14 journals.

Dr. Charles F. Pelphrey, Austin, 8 journals.

Dr. Morris Polsky, Austin, 7 journals; 2 pamphlets.

Dr. R. M. Rothen, Austin, 23 journals; 2 books.

Dr. Nelson R. Schiller, Austin, 55 journals; reprints.

Dr. Lorraine I. Stengl, El Campo, 122 journals; 4 photographs; reprints.

Dr. George W. Tipton, Austin, 106 journals; 23 books.

Dr. B. O. White, Austin, 16 journals.

★ Motion Pictures

Are You Positive?

Sound, color, 14 minutes, 1957.

This animated film asks its viewers how important tuberculosis is to them and to their community. Despite the seriousness of its thought provoking message, the whimsy and humor of its presentation make it a film which all will enjoy.

Fractures of the Femur About the Hip

Sound, color, 21 minutes, 1955.

The anatomy of the region about the hip is shown with special emphasis on the blood supply to the head and neck of the femur. Treatment is detailed for fractures of the femoral neck and for intercondylar fractures. The relative merits of maintenance of reduction by nailing or by traction are discussed.

The Medical Team

Sound, black and white, 8 minutes, 1957.

The scrub nurse, the medical technologist, x-ray technician, occupational therapist, physical therapist, and medical artist are graphically portrayed. This film is geared to recruit students and was made in Hermann Hospital, Houston, and Southwestern Medical School, Dallas. A "Texas in Review" television film, it was deposited by the Texas Commission on Patient Care.

Whitehall 4-1500

Sound, color, 30 minutes, 1957.

This film tells the story behind the American Medical Association's telephone number. Through dramatic case histories it spells out doctors' services as individuals and as members of medical organizations. It shows how doctors as a group work to bring better medical care, health, and life to all Americans. The film is good for showing to civic groups, women's clubs, church groups, and medical societies.

SLIDES

The Medical Office Assistant

A set of 20 slides made by the Texas Commission on Patient Care in Austin and El Paso shows the medical assistant at work.

★ Books

Books Newly Acquired

Altschule, Mark D.: *Roots of Modern Psychiatry—Essays in the History of Psychiatry,* New York, Grune and Stratton, 1957.

Association for Research in Nervous and Mental Disease: *Neurologic and Psychiatric Aspects of the Diagnosis of Aging,* Vol. 35, Baltimore, Williams and Wilkins, 1956.

Atlee, H. B.: *Natural Childbirth,* Springfield, Ill., Charles C Thomas, 1956.

Biddle, William W.: *Cultivation of Community Leaders,* New York, Harper and Brothers, 1953.

Charnley, John: *Closed Treatment of Common Fractures,* ed. 2, Baltimore, Williams and Wilkins, 1957.

Dimond, E. Grey: *Digitalis,* Springfield, Ill., Charles C Thomas, 1957.

Dripps, Robert.; Eckenhoff, James E.; and Vandam, Leroy D.: *Introduction to Anesthesia,* Philadelphia, W. B. Saunders, 1957.

Felton, Harriet M.: *Host-Parasite Relationships in Living Cells,* Springfield, Ill., Charles C Thomas, 1957.

Fox, Joseph: *Chronically Ill,* New York, Philosophical Library, 1957.

Gordon, Thomas: *Group Centered Leadership,* Boston, Houghton Mifflin, 1955.

Great Britain Ministry of Agriculture: *Manual of Nutrition,* New York, Philosophical Library, 1957.

Kanner, Leo: *Child Psychiatry,* ed. 3, Springfield, Ill., Charles C Thomas, 1957.

Lee, Irving J.: *How to Talk with People,* New York, Harper and Brothers, 1952.

Marshall, Mary Louise: *The Physician's Own Library,* Springfield, Ill., Charles C Thomas, 1957.

Mason, A. Stuart: *Introduction to Clinical Endocrinology,* Springfield, Ill., Charles C Thomas, 1957.

Moloney, James Clark: *Fear: Contagion and Conquest,* New York, Philosophical Library, 1957.

Murray, Janet P., and Murray, Clyde E.: *Guide Lines for Group Leaders—The Why and How of Group Work,* New York, Whiteside, 1954.

Palmer, Eddy D.: *Clinical Gastroenterology,* New York, Hoeber-Harper, 1957.

Perera, Charles A.: *May's Manual of the Diseases of the Eye,* ed. 22, Baltimore, Williams and Wilkins, 1957.

Raven, Ronald, Ed.: *Cancer,* London, Butterworth, 1957.

Roberts, Sam E.: *Ear, Nose and Throat Dysfunctions Due to Deficiencies and Imbalances,* Springfield, Ill., Charles C Thomas, 1957.

Trecker, Harleigh B., and Trecker, Audrey R.: *How to Work with Groups,* New York, Whiteside, 1952.

Weitzenhoffer, Andre M.: *General Techniques of Hypnotism,* New York, Grune and Stratton, 1957.

Year Book of Medicine, 1957-1958, Chicago, Year Book Publishers, 1957.

Book Notes

Practical Pharmacology

J. H. BURN, Professor of Pharmacology, University of Oxford. Illustrations by E. M. VAUGHAN WILLIAMS. 72 pages. $5.50. Oxford, Blackwell Scientific Publications, 1957.

A Book of Contemplation

DAGOBERT D. RUNES. 149 pages. $3. New York, Philosophical Library, 1957.

Radiology of the Heart and Great Vessels

ROBERT N. COOLEY, M.D., Professor and Chairman of the Department of Radiology, University of Texas, Medical Branch, Galveston, and ROBERT D. SLOAN, M.D., Professor and Director of the Department of Radiology, University of Mississippi Medical Center, Jackson. 309 pages. $12. Baltimore, Williams & Wilkins Company, 1956.

This presentation appropriately starts with a historical approach to the subject thereby initiating the material in its proper perspective as to origin and logical lines of development with a certain amount of philosophy toward study of the heart as handed down from William Harvey, which is still applicable today. The coverage of equipment, technique, and procedure is stressed.

All of the modes of cardiac study from a radiologic point of view are considered, and many are illustrated with photographs, line drawings, or the actual radiographs themselves. The listing of the materials used in the various procedures is helpful and allows one to evaluate his own procedures by comparison. The inclusion of illustrations from many institutions lends wide coverage. Labelled radiographs and line sketches side by side make for increased clarity of presentation and make the text more easily understood and a quicker source of reference. One is impressed with the attention paid to the normal, for without a normal base line for comparison one cannot properly interpret pathology. The sections on cardiac measurement and the use of the electrokymograph tracings were read with considerable interest.

There is an excellent section on congenital anomalies of the heart and great vessels illustrated with radiographs, contrast studies with sketches, illustrations, and line drawings best suited to bring out the salient features of each condition. Diseases and miscellaneous conditions are encountered in the study of the heart along with lesions found in the pericardium.

Pathological lesions of both the thoracic and abdominal aorta are reviewed after a good discussion of anatomical considerations and etiologic agents and their effects. The liberal use of illustrations of contrast media in the study of the thoracic and abdominal aorta and their branches enhances the value of the book as does a discussion of the contraindications and complications that one might encounter.

This book is recommended reading for anyone interested in the study of the heart and great vessels.

—Joe C. Rude, M.D., Austin.

J.A.M.A. Clinical Abstracts of Diagnosis and Treatment

Published with the Approval of the Board of Trustees, American Medical Association. 564 pages. $5.50. New York, Intercontinental Medical Book Corporation with Grune & Stratton, 1957.

Rypins' Medical Licensure Examinations; Topical Summaries and Questions

WALTER L. BIERRING, M.D., M.A.C.P., M.R.C.P., Edin (Hon.). With the Collaboration of a Review Panel. ed. 8. 964 pages. $10. Philadelphia, J. B. Lippincott Company, 1957.

The editor of the eighth edition of this publication has followed the original plan—separate summaries on each subject and actual questions based on essential facts. He has had excellent cooperation in a panel of outstanding teachers and clinicians in reviewing and bringing the subject matter up to date. The editor believes that there should be closer cooperation between the licensing boards and the medical schools. He feels that the schools should test the student's academic knowledge and the boards should limit themselves to inquiring into the ability of the graduate to apply such knowledge. The present volume aims to cover the material essential for the candidate without repetition and omitting all technical procedures.

A Textbook of Histology

ALEXANDER A. MAXIMOW, Late Professor of Anatomy, University of Chicago and WILLIAM BLOOM, Professor of Anatomy, University of Chicago. ed. 7. 628 pages. 1082 illustrations, 265 in color, on 631 figures. Philadelphia, W. B. Saunders Company, 1957.

The present edition of this standard book of histology includes many electron micrographs which are excellent. It is true that many medical students and relatively few pathologists have access to electron microscopes, but these reproductions are excellent to demonstrate the fine detail of the structure of the cells. In addition, there is a fine section demonstrating in color the details which can be demonstrated by the various methods of fixation and staining as seen under an ordinary microscope. Many medical students never realize the different materials which can be demonstrated by different staining techniques.

The text is an excellent reference for any of the various organ systems of the body with splendid photographs as well as the descriptions in the text. In addition, many areas include some discussion of physiology of the organ which is being described.

This textbook is one that should be owned by anyone doing any examination of tissues, either medical students, histologists, or pathologists.

—George V. Miller, M.D., Houston.

Manual of Hand Injuries

H. MINOR NICHOLS, M.D., Clinical Instructor in Surgery, University of Oregon Medical School, Portland. Foreword by Michael L. Mason, M.D. 352 pages. $9.50. Chicago, Year Book Publishers, 1955.

The rapid growth in interest in development of suitable techniques in hand surgery is due greatly to the increased appreciation of the functional value of the hand socially and economically. Realizing that surgery of the hand demands special training which is seldom received in school or residencies, the author has presented a book that will be of great use to physicians caring for acute injuries. Final constructive procedures may demand the skill of a plastic or orthopedic surgeon, but the immediate emergency is often of most importance—hence it is necessary that every surgeon understand the general principles so that he can undertake the care when the occasion presents itself. This volume should serve as a reliable guide.

Diseases and Disorders of the Colon

ANTHONY BASSLER, M.D., F.A.C.P., F.A.C.G., Consulting Gastroenterologist, New York Polyclinic Medical School and Hospital, New York. 217 pages. $6.75. Springfield, Ill., Charles C Thomas, 1957.

This book is a small one. It is concise and to the point, which makes it easy and quick to read. Because of these factors, the book is suitable for and recommended to the medical student, the general practitioner, and the medical or surgical gastroenterologist.

There is no discussion of basic anatomy or physiology of the colon. The addition of this would improve the reading value of the book.

Many diseases and disorders are discussed after having been categorized under inclusive topics. This makes for easier understanding while reading and better recollection in the future.

Much has been written about disease of the colon. This reflects the inadequacy of knowledge of colon disease. The author emphasizes this and presents the various subjects without didactic or dogmatic statements as to treatment. Instead, he gives a brief but complete definition of the disease or disorder. He presents salient and necessary points of diagnostic value. And finally, he outlines to the reader some of the treatments which have been, are now, and probably will be used in the curtailment or cure of the disease. The surgical entities and procedures, although presented, are somewhat minimized.

However, the reviewer found the discussions on appendicitis, intestinal obstruction, and colitis particularly interesting, informative, and complete.

Appendicitis is thoroughly differentiated from the point of view of being childhood or adult in type. It is further differentiated and categorized into the acute and chronic phase. Both nonsurgical and surgical treatment for each is well outlined along with their respective indications.

Intestinal obstructions are well outlined and defined. A few changing trends as to the etiological frequencies and treatments are presented in an easily readable and comprehensive manner.

Colitis is briefly defined and discussed from the etiological aspect. A differentiation is made between infectious and functional types, and various treatments are suggested. Ulcerative colitis is dealt with in a bit more detail. The disease is defined; a historical etiological and epidemiological review is given; a pathological classification is given; and the complicating sequelae are presented. The author finally sums up the medical treatment of the disease and outlines the cases for surgical intervention.

The parasitic infestations, the anatomic, and functional disorders as well as other subjects are equally well discussed.

The book, although small in volume, is large in context and is worth its price.

—Edward James Mason, Jr., M.D., Pittsburgh, Pa.

Human Blood Groups and Inheritance

SYLVIA D. LAWLER, M.D., External Scientific Staff, Medical Research Council. Galton Laboratory, University College, London; L. J. LAWLER, B.Sc., Formerly of the Polytechnic, Regent Street, London; with a foreword by R. R. Race, Ph.D., M.R.C.S. (England), F.R.S., Director, Medical Research Council Blood Group Research Unit. 103 pages. $1.50. Cambridge, Mass., Harvard University Press, 1957.

Dr. R. R. Race in his foreword states that "a readable, accurate and up-to-date account of the human blood groups, for both the biologists and the lay reader, is long overdue. This admirable little book fulfills all these requirements, and should be widely welcomed."

"Blood groups are of importance in medicine, in anthropology and occasionally in the law, and all these aspects are dealt with in this book," Dr. Race points out. But to the reader with a general interest in biology the most fascinating aspect must surely be their inheritance. The exact manner of inheritance of only eleven normal human characters is yet known with certainty. Since nine of these characters are blood groups, it is important that all students of biology should have some knowledge of this subject. They could have no better guides than Mr. and Dr. Lawler, who have provided a complete and authoritative account."

Clinical Unipolar Electrocardiography

BERNARD S. LIPMAN, M.D., F.A.C.P., Instructor in Medicine, Emory University School of Medicine; Consultant, Glenville Giddings Cardiac Clinic, St. Joseph Infirmary, Atlanta; and EDWARD MASSIE, M.D., F.A.C.P., Associate Professor of Clinical Medicine, Washington University School of Medicine, and Director of Heart Stations, Barnes Hospital and Jewish Hospital, St. Louis. ed. 3. 397 pages. $7.50. Chicago, Year Book Publishers, Inc., 1956.

This edition indicates the wide acceptance and approval of a truly excellent presentation of the subject. The authors have followed the pattern set in earlier editions by illustrating frequently and simply.

The manner in which the authors carry the reader from the

anatomical and physiological considerations to the direct clinical application is expertly achieved. Electrical positioning is stressed. Bundle branch block and myocardial infarction are given special consideration, diagrams again being used profusely. Less common cardiac lesions such as ventricular aneurysm, myocarditis, pericarditis, endocarditis, malignant carcinoid, and cor pulmonale are explained. The effects of cardiac drugs and serum electrolytes in abnormal amounts are discussed. Latent coronary artery disease may be elicited by the two step (Master) exercise test as well as by the anoxemia and other tests, but the exercise test is preferred.

Twenty-one types of congenital heart deviations are discussed; this is timely since the surgeon today can correct many of these under direct vision. The atlas contains illustrative tracings of many of these defects before and after surgery.

A section on vectorcardiography and vector electrocardiography brings the reader up to date on spacial vector interpretation. Though briefly presented, electrocardiograms and diagrams explain the clinical applications.

Cardiac arrhythmias can be diagnosed electrocardiographically when physical methods fail. All abnormal rhythms are didactically presented except the Wolff-Parkinson-White phenomenon; however, a typical tracing is presented in the atlas.

This book is well worth its price in the beautiful atlas tracings presented in the rear. The common and uncommon unipolar electrocardiograms are included followed by congenital defects and cardiac arrhythmias.

This book is heartily recommended to both the student and internist.

—Pierre P. Poole, M.D., Brownsville.

Synopsis of Gastroenterology

RUDOLF SCHINDLER, M.D., F.A.C.P., Clinical Professor of Medicine (Gastroenterology), College of Medical Evangelists, Los Angeles. 395 pages. $7.75. New York, Grune & Stratton, 1957.

The title is well chosen as this handbook covers the field rather completely. In the preface Dr. Schindler states that the book has been written specifically for the general practitioner and the internist. It is excellent as an index of differential diagnosis, but the internist probably would be more interested in a more detailed text.

The introductory chapters on gastrointestinal symptomatology related to disease of other organ systems, general etiology, and examination are especially good. The bibliography has been omitted to conserve space.

For those interested in brief discussions of gastrointestinal subjects highlighted by personal opinions of an elder statesman in gastroenterology, the text is highly recommended.

—O. Roger Hollan, M.D., San Antonio.

Peripheral Circulation in Health and Disease

WALTER REDISCH, M.D., F.A.C.P., Associate Professor of Clinical Medicine, New York University College of Medicine, and FRANCISCO F. TANGEO, M.D., Assistant Professor of Medicine, University of the Philippines Medical School, Manila, and Research Fellow, New York University College of Medicine. Special section by R. L. DEC. H. SAUNDERS, M.D., F.R.S.E., Professor and Head of the Department of Anatomy, Dalhousie University Medical School, Halifax, Nova Scotia, and Associates. 154 pages. $7.75. New York, Grune & Stratton, 1957.

This thoroughly up-to-date text on peripheral circulation will be found useful to both the specialist, who limits himself to this condition, and the general practitioner. It is divided into five parts, the first of which deals with the basic concepts of peripheral blood flow as now understood. Part 2 concerns the pathological changes altering peripheral blood flow. Part 3 is a unique approach to the problem of treatment in that it is based upon the physiological responses brought about by the pathological alterations of peripheral blood flow. In part 4, both the medical and surgical aspects of treatment are thoroughly discussed as well as the various complications relating to its management. Part 5 relates an extremely interesting piece of work carried on by the authors with regard to the arterial and venous vascular beds found in the musculature of the human body. The normal alterations from age and the changes brought about by pathology are taken into consideration. This work, well illustrated by radiographs and microradiographs, will be helpful to anyone interested in this problem.

The thought provoking concepts drawn from these studies are worthy of deepest consideration with regard to the understanding of the basic physiology and pathology of the many diseases affecting the vascular system.

—J. C. Hohf, M.D., Victoria.

Ciba Foundation Colloquia on Endocrinology; Volume 10: Regulation and Mode of Action of Thyroid Hormones

Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.D., B.Ch., and Elaine C. P. Millar, A.H.W.C., A.R.I.C. 311 pages. 114 illustrations. $8.50. Boston, Little, Brown and Company, 1957.

ORGANIZATION SECTION

★ American Medical Association

AMA to Sponsor Health Conference

The American Medical Association's Council on Industrial Health will sponsor the eighteenth annual Congress on Industrial Health, January 27-29 in Milwaukee. Maintaining high standards of health in industry will be the major topic of the congress to be attended by physicians, nurses, industrial hygienists, engineers, and others interested in the field.

Panelists will discuss recent developments in industrial health programs and various aspects of immunization programs in industry at a special session co-sponsored by chairmen of state medical society committees on industrial health. The following three technical sessions will be featured: (1) general aspects of disability evaluation; (2) industrial dermatitis, causes and evaluation of disability; (3) low back pain, cause, treatment, evaluation of disability, rehabilitation.

County Society Survey Results Available

A booklet giving results of a questionnaire sent to county medical societies concerning their activities and programs has been issued by the American Medical Association's Council on Medical Service. Copies are being sent to state and county societies and may be had upon request from the council. The booklet is entitled "1957 Nationwide Survey on County Medical Society Activities."

Executive Council To Convene January 19

The week end of January 18-19 will be an active one at the Texas Medical Association headquarters building in Austin. In preparation for the Executive Council session on Sunday morning, January 19, at 9 o'clock, many of the Association's boards, councils, and committees will meet Saturday.

Beginning Saturday morning, the seventh annual Conference of County Medical Society Officials and Symposium on Legislation will be in session; and the Association's third Indoctrination Program for new and transfer members will be held concurrently. The groups will join for talks by three noted guest speakers: Kenneth McFarland, Ph.D., Topeka, Kan., educational consultant of General Motors Corporation, who will speak on "Ropes of Gold"; Dr. J. Lafe Ludwig, Los Angeles, a member of the Committee on Legislation of the American Medical Association, whose subject is to be "The Evolution of Social Security and Its Impact Upon Medicine"; and James G. Roberts, Dallas, manager of the Southwestern Division, Chamber of Commerce of the United States, whose talk will be on "The Medical Man and the Incentive System."

Physicians and their ladies will be guests of the Association for luncheon in the headquarters building Saturday, and a hospitality hour will be given at the Driskill Hotel at 6:30 o'clock that evening.

Conference on Physicians and Schools

The second statewide Conference on Physicians and Schools, sponsored by the Committee on School-Physician Relationships of the Texas Medical Association, in cooperation with the Texas Education Agency and the Texas State Department of Health, will be held in Austin, January 7-8. The following will be included on the program:

Tuesday, January 7, afternoon program, 4:30 p. m.—Registration. Evening program, 7 p. m.—Conference banquet, L. P. Sturgeon, director of public relations, Texas State Teachers Association, Austin, speaker.

Wednesday, January 8, morning program, 8:30 a. m.—Opening of general session, outline of scope and intent of conference by representatives of sponsoring groups. Panel discussions: Mental Health in the Classroom, Advisory Health Councils and the Schools, Role and Responsibilities in School Health, Health Problems of Pupils and School Personnel, and Emergency Care and Communicable Disease Control.

Noon—General conference luncheon, Fred V. Hein, Ph.D., consultant in health and fitness, Bureau of Health Education, American Medical Association, Chicago, speaker. Afternoon program, 2 p. m.—Panel discussions: School Health Services—A Part of the School Health Program, Cooperative Efforts in Local Communities, Safety and Accident Prevention, The Physician and Physical Education, and Health Aspects of School Bus Transportation.

Dr. Jay J. Johns, chairman of the Committee on School-Physician Relationships, urges all members of the Association, especially members of county society committees set up to improve relations between physicians and schools, to attend this meeting.

Hotel Reservations For Annual Session

Reservations for hotel bedrooms for the Texas Medical Association annual session (Houston, Saturday-Tuesday, April 19-22) will be taken beginning January 1.

Hotels available to accommodate members include:

Shamrock Hilton Hotel, Main at Holcombe Boulevard.
Rice Hotel, Main and Texas.
Warwick Hotel, 5701 Main.
William Penn Hotel, 1423 Texas.
Ben Milam Hotel, 1521 Texas.
Lamar Hotel, 804 Fannin.
Sam Houston Hotel, 1119 Prairie.
Texas State Hotel, 720 Fannin.
Hotel Plaza, 5020 Montrose Boulevard.
Town House, 3011 Buffalo Drive.
Algiers Hotel (Negro), 2412 Blodgett.

The following motels are available:

Alamotel Court, 8700 S. Main.
Braeswood Motel, 2116 Holcombe.
Buffalo Inn Hotel, 9051 S. Main.
Carlon Courts, 8000 S. Main.
Grant Motel, 8200 S. Main.
Nomad Motor Hotel, 10000 S. Main.
Plaza Motel, 1700 Old Spanish Trail.
Pioneer Motel, 2902 Old Spanish Trail.
Rainbow Inn Motel, 3713 Old Spanish Trail.
Ranger Motel, 2916 Old Spanish Trail.
St. Francis Courts, 3615 Old Spanish Trail.
Sun Valley Hotel, 1310 Old Spanish Trail.
Wallcroft Gardens, 1857 Old Spanish Trail.
Western Skies No. 1, 2806 Old Spanish Trail.
King Motel, 9101 Main.
Navarro Motel, South Main Street Road.

General membership should address reservations to: Hotel Managers Association of Houston, P. O. Box 2371, Houston 1.

A block of rooms at the Shamrock Hilton Hotel has been reserved for the official family, guest speakers, and exhibitors. Reservation cards have been sent to officers, committee members, and guest speakers. After March 1, rooms held for the Texas Medical Association's official family will be made available for general assignment.

Most Texas Medical Association activities will center in the Shamrock Hilton Hotel, as will most other scientific events. Meetings of the Woman's Auxiliary will be held at the Rice Hotel.

(Cut out and mail to Hotel Managers Association of Houston, P. O. Box 2371, Houston 1.)

REQUEST FOR
HOTEL RESERVATION

HOTEL OR MOTEL

Please make the following reservation for the period of the Texas Medical Association annual session in Houston and confirm:

1st Choice_____

2nd Choice_____

3rd Choice_____

Number and Type of Accommodation:
☐ Single Bedroom ☐ Twin Bedroom ☐ Double Bedroom

Other (specify)_____

Arriving: Date_____ Hour_____

Departing: Date_____ Hour_____

Signed_____

Street_____

City and State_____

Conference of County Medical Society Officials and Symposium on Legislation

Texas Medical Association Headquarters Building

Austin, January 18, 1958

Morning Program, 10:30 a. m.

Keynote.—DR. DENTON KERR, Houston, President, Texas Medical Association.

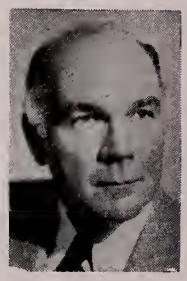
Ropes of Gold.—KENNETH MCFARLAND, Ph.D., Topeka, Kan., Educational Consultant, General Motors Corporation.

Panel Discussion: Increasing the Effectiveness of County Societies.—DR. R. MAYO TENERY, Waxahachie, Secretary, Board of Councilors, Moderator.

Administrative Responsibilities of Officers; Essential Committee Activity.—DR. CARLOS E. FUSTE, Alvin, Councilor, District 8.

Planning Programs for Society Meetings.—DR. TRAVIS SMITH, Abilene, Councilor, District 13.

Stimulating Greater Attendance at Meetings.—DR. C. E. OSWALT, JR., Fort Stockton, Councilor, District 1.



DR. MCFARLAND

The County Society's Role in Determining State and National Policies; Issues Confronting State Delegates in 1958.—DR. CHARLES P. HARDWICKE, Austin, Speaker, House of Delegates.

Luncheon, 12:30 p. m.

Afternoon Program, 2:00 p. m.

Call to Order.—DR. M. O. ROUSE, Dallas, Chairman, Texas Delegates to the American Medical Association.

The Evolution of Social Security and Its Impact Upon Medicine.—DR. J. LAFE LUDWIG, Los Angeles, Committee on Legislation, American Medical Association.

Panel Discussion: Key Legislation of Medical Importance in the 1958 Session of Congress.—DR. G. W. CLEVELAND, Austin, Chairman, Council on Medical Jurisprudence, Moderator.

Social Security Coverage for Doctors.—DR. JOHN M. SMITH, JR., San Antonio, Council on Medical Jurisprudence.

The Jenkins-Keogh Bills—Their Interest to Doctors and to 10 Million Self-Employed.—DR. ROBERT D. MORETON, Fort Worth, Council on Medical Jurisprudence.

Health Insurance for Civil Service Employees; Federal Aid for Medical Research and Medical Teaching Facilities; Reinsurance; and Bills Affecting VA Medical Care.—DR. JAMES W. RAINER, Odessa, Council on Medical Jurisprudence.

DR. LUDWIG

Introduction: DR. HOWARD O. SMITH, Marlin, President-Elect.

The Doctor and the Incentive System.—JAMES G. ROBERTS, Dallas, Manager, Southwestern Division, Chamber of Commerce of the United States.

MR. ROBERTS

Evening Program, 6:30 p. m.

Hospitality Hour.—Driskill Hotel.

Indoctrination Program

Texas Medical Association Headquarters Building
Austin, January 18, 1958

Morning Program, 9:30 a. m.

Welcome.—DR. DAVID W. CARTER, JR., Dallas, Vice-President.

The Texas Medical Association—An Accounting of Stewardship—What Happens to Your $50? —DR. R. W. KIMBRO, Cleburne, Chairman, Board of Trustees.

American Medicine: Its Objectives, Its Programs, and Its Problems.—C. LINCOLN WILLISTON, Austin, Executive Secretary.

A Message from the President.—DR. DENTON KERR, Houston, President.

Ropes of Gold.—KENNETH MCFARLAND, Ph.D., Topeka, Kan., Educational Consultant, General Motors Corporation.

Medical Ethics Considerations in the Practice of Medicine.—DR. FRANKLIN W. YEAGER, Corpus Christi, Chairman, Board of Councilors.

Serving the Doctors of Texas.—DONALD M. ANDERSON, Austin, Assistant Executive Secretary.

Luncheon, 12:00 noon.

Afternoon Program, 1:15 p. m.

Call to Order.

Medical Economics Considerations in the Practice of Medicine.—DR. HARVEY RENGER, Hallettsville, Chairman, Council on Medical Economics.

Voluntary Prepayment Health Insurance.—DR. ROY T. LESTER, Dallas, Medical Director, Blue Cross-Blue Shield of Texas.

The Evolution of Social Security and Its Impact Upon Medicine.—DR. J. LAFE LUDWIG, Los Angeles, Committee on Legislation, American Medical Association.

Workmen's Compensation Laws.—SMITH PETTIGREW, Dallas, Medical Coordinator, Texas Employers' Insurance Association.

Legal Aspects of Medical Practice; Malpractice and How to Avoid It.—PHILIP R. OVERTON, Austin, General Counsel.

The Doctor and the Incentive System.—JAMES G. ROBERTS, Dallas, Manager, Southwestern Division, Chamber of Commerce of the United States.

Evening Program, 6:30 p. m.

Hospitality Hour.—Driskill Hotel.

The Indoctrination Program is for provisional members of the Texas Medical Association, who may attend the program any time during a two year period. The next programs will be presented in Houston at the annual session April 22 and in Austin September 6.

★ District Societies

Fourth District Society Convenes

Meeting in Brownwood on November 7, members of the Fourth District Medical Society were greeted first by the mayor, Murray Wilner, and then heard the following program:

Urticaria—Dr. C. H. McCuistion, Austin.
Endometriosis and Infertility—Dr. E. K. Blewett, Austin.
Traumatic Injuries of the Face—Dr. Mark L. Lemmon, Dallas.
Emergency Management of Burns of Difficult Sites—Dr. Lemmon.
Differential Diagnosis of Hypertension—Dr. William J. Block, San Antonio.
Surgical Treatment of Jaundice—Dr. M. Bradfield Oxford, San Antonio.
Peripheral Vascular Disease—Dr. Block.
Surgical Management of Peripheral Vascular Disease—Dr. Oxford.

Officers of the society for 1958 are Dr. O. H. Chandler, Ballinger, nominee for Councilor; Dr. Fred D. Spencer, Brownwood, president; Dr. Joe R. McFarlane, Brownwood, vice-president; and Dr. W. Lacey Smith, San Angelo, secretary. The 1958 meeting will be held in San Angelo.

Tenth District Has Fall Program

The Tenth District Medical Society held its fall meeting at the Port Arthur Country Club, Port Arthur, November 3. Dr. C. W. Castle, Liberty, presided at the scientific program. This included talks on "The Status of Cholesterol and Unsaturated Fatty Acids in Atherosclerosis" by Dr. Taylor C. Walker, Beaumont, and "Tranquilizing Drugs in Office Practice" by Dr. C. F. Adkins, Beaumont.

A business meeting and dinner with the Auxiliary followed. New officers elected include Dr. B. F. Pace, Beaumont, president, and Dr. W. J. Poshataske, Silsbee, secretary-treasurer.

Fifteenth District and GP's Meet

The Fifteenth District Medical Society met in Marshall, November 10, in conjunction with the postgraduate seminar conducted for area members of Texas Academy of General Practice by the faculty of Southwestern Medical School of the University of Texas, Dallas. Speakers included Dr. John S. Chapman, Dr. Herman I. Kantor, and Dr. William O. Tschumy, Jr.

Dr. Denton Kerr spoke at the luncheon on "The Doctor's Positive Program."

Newly elected officers are Dr. Charles Wise, Naples, president; Dr. A. J. Woods, Jefferson, vice-president; and Dr. George Bennett, Marshall, secretary-treasurer.

★ County Societies

News Briefs from Minutes Of County Medical Societies

The following news items come from the minutes of various county medical society meetings:

The editor of the *Waco News Tribune* requested that members of the *McLennan County Society* write a weekly health article to be published in the paper. The society unanimously agreed to back such an article. The society also agreed to provide some type of preschool training for children with deficient hearing and vision. Members voted to allow the local press to quote by name the president, secretary, and chairman of the public relations committee when any news item concerning the medical profession and problems of civic interest was given to the papers.

Dr. Daniel R. Reilly announced to the *Tom Green-Eight County Society* at its November meeting that he was able to obtain penicillin for oral or parenteral use in rheumatic fever prophylaxis and that it would be available free to members of the society.

Members of the *San Patricio-Aransas-Refugio Counties Society* have held meetings with both lawyers and pharmacists of the three counties as guests of honor. The purpose of these meetings was to initiate a program of better relationship between the doctors and other professional groups.

Societies Build Good Relationships

Most of the Texas county medical societies meet with other professional groups throughout the year and three have established definite programs for building good relationships with other groups as indicated from returns of a questionnaire sent from the Texas Medical Association's headquarters in Austin.

Each of the three societies which stated that they have definite programs for establishing good relationships listed different methods for carrying out this program. *Bexar County Society* builds good relations by engaging doctors to speak at various organizations, by meeting with military physicians, and by holding press entertainment parties. The *Dallas County Society* maintains an interprofessional relations committee to create good public relations with other professional groups. The officers and committees of this society often meet with the Bar Association, the press, pharmaceutical groups, nurses, and hospital councils. The *Travis County Society* meets twice annually with other organizations. A joint meeting of the society with the Travis County Bar Association, planned by the society's program committee, was one of the most effective meetings.

Numerous societies often meet with other groups even though they have no definite program. The *Bastrop-Lee Counties Society* meets once a year at a dinner with pharmacists and dentists. At the December meeting of the society, donations of new and used clothes and games are given patients of the Austin State Hospital. The *Comal County Society* meets with other organizations three or four times a year. The society has been successful with its inoculation program for school children each year. Members meet with the school board to urge that compulsory diphtheria-pertussis-tetanus and poliomyelitis shots be given to school children. The *McLennan County Society* last year had an excellent meeting with the military personnel at James Connally Air Force Base. There the program was put on by the military medical staff. In *Nueces County*, the doctors have many contacts with insurance men, including an annual picnic for the two groups. These programs started because of conflict between the doctors and insurance claims adjusters in this county but a good relationship between the groups now exist.

A definite program is being established by the *Webb-Zapata-Jim Hogg Counties Society* with nurses, dentists, pharmacists, and lawyers in this area. The *Washington-Burleson Counties Society* has an annual meeting with the County Tuberculosis Association which is planned by the presidents. A similar meeting is held by the *Hill County Society* and the County Tuberculosis Association. The *Gregg County Society* recently met with the county polio foundation chairman to discuss giving the polio vaccine to

grammar and high school students. The *Tarrant County Medical Society* occasionally has dinner meetings with dentists, press representatives, and legislators.

The *El Paso County Medical Society* recently sponsored a program with the district nurses. The Woman's Auxiliary made arrangements for the meeting, which was held in a private residence. Luncheon was served to nurses, doctors, and wives. Although this was the first of such meetings, the society hopes to make the event an annual affair.

Good Group Relations

The societies listed various groups, ranging from Rotarians to retail druggists, with which they have excellent relationships. Many groups indicated that they have good relations with all organizations in their area or that there is no one group with which they have better relations than another. The press, lawyers, and service clubs were mentioned by most societies as having the best relationship with the doctors. Most of the societies said that there was no particular group with which the physicians in their area had poor relations. A few, however, said that certain organizations and agencies failed to cooperate with the doctors.

The *Bastrop-Lee Counties Society* has excellent relations with pharmacists and dentists. *Bexar County Society's* best relationships exist with the drug travelers associations, retail druggists, and the press. The *Comal County Society* helps plan programs for the P. T. A. and service clubs by giving speeches and has created a very good relationship with these particular organizations. The *Travis County Society* lists attorneys, medical assistants, and the press as the organizations which cooperated the best with the doctors of that county. Travis Society has accomplished this relationship by having joint meetings with attorneys, furnishing speakers to the medical assistants' meetings, and having joint luncheons with the society's public relations committee and the press.

The *Red River* and *Johnson County Societies* listed druggists as being extremely cooperative, whereas businesses cooperate very well with the *Dallam-Hartley-Sherman-Moore Counties Society.* The press has created good relations with the *Lampasas-Burnet-Llano Counties Society, Dallas County Society,* and the *Camp-Morris-Titus Counties Society.* The *Hardeman-Cottle-Foard-Motley Counties Society* and the *McLennan County Society* have created good relations with the service clubs in their counties.

Projects With Other Groups

Many of the county societies answering the questionnaires said that they were engaged in a Salk vaccine project (for school children) with the school officials of their counties. Several others had begun writing doctor's columns and medical editorials in the local paper. The *McLennan County Society* has a weekly medical editorial in the local newspaper written by a different member of the society each week, and the *Travis County Society* has a health column entitled "Your Doctor Speaks" in the local press.

Six forums on matters of medical interest, such as diseases of allergy, cancer, and gastrointestinal disorders, were sponsored by the *El Paso County Medical Society* last year. These forums, open to the public, were held in a downtown location which could accommodate about 200 people, and were publicized in the local newspaper. Doctors of the panel answered questions from the floor after a short introductory talk on each subject.

Officials of the *Nueces County Society* release news items directly to the local newspaper. The society recently cooperated with a television program for muscular dystrophy, aided in the United Fund drive, and put on a show for television and radio on Asian flu. The *Dallas County Society* sponsors a health forum with the newspaper and has two special sections in the newspaper each year. *Gregg County* reviewed lectures on cardiovascular disease in the local paper in conjunction with the drive of the American Heart Association. This society also was co-sponsor with the March of Dimes for polio inoculations for indigents. The *Brown-Comanche-Mills-San Saba Counties Society* cooperated with the public health department in giving school children the Salk vaccine.

In addition to the joint activities and projects listed in the replies to the questionnaire, more than one county society secretary called attention to the building of good professional relations through personal acquaintances and through individual participation of physicians on boards and committees in the community. The public relations chairman of the *Nueces County Medical Society,* Dr. G. M. McCaskey, also pointed out another technique that has paid dividends in better relations with groups with which conflicts arise: "we invite them in to talk to us—we go talk to them."

County Society Programs

Recent programs presented before county medical societies include the following:

Bastrop-Lee Counties Society—"Tranquilizing Drugs," Dr. Walker Reifslager, Austin.

Bexar County Society—"Current State of Knowledge on the Influence of Diet and Related Metabolic Factors to the Incidence and Course of Atherosclerosis," Dr. Frederick Stare, Harvard School of Public Health, Boston; "The Relationship of Circulating Lipids and Lipoproteins to the Disease," Colonel L. J. Milch, San Antonio; "Certain Statistical Aspects of the Disease, Incidents, and Human Populations," Dr. W. F. Taylor, San Antonio; and "Clinical Aspects of the Disease," Dr. Lawrence E. Lamb, San Antonio; "Investigations in the Problems Involving the Gastrointestinal Tract," Dr. A. O. Singleton, Jr., Galveston; and Dr. Fritz Linder, German surgeon, also addressed the society.

Cameron-Willacy Counties Medical Society—"Anticoagulants," Dr. John W. Chriss and Dr. James G. Gabbert, Corpus Christi.

Falls County Society—"Newer Aspects of the Diagnosis and Treatment of Liver Diseases," Dr. Richard D. Haines, Temple; and "Place of Hypnosis in Anesthesia," Dr. Andrew Heinrich, Fort Worth.

The East Harris County Branch of the *Harris County Medical Society* reports a 91.32 per cent attendance record for all of its meetings during the past year.

McLennan County Society—"Subdural Hematoma," Dr. Harry W. Slade, Longview; "Public Relations," Woody Barron, editor of *Waco News Tribune,* Waco; "Segmental Ulcerative Colitis," Drs. W. B. King, M. W. Colgin, and W. H. Granger, all of Waco; and "Pediatric Surgery," Dr. Roy Baskin, Waco.

Hill County Society—"Ideas in Diagnosis," Drs. William C. Tatum, Charles Robinson, and Robert S. Mallard, all of Fort Worth; and "Precancerous Conditions," a motion picture.

Pecos-Jeff Davis-Presidio-Brewster Counties Society—"Medicare," Dr. Roy T. Lester, Dallas.

San Patricio-Aransas-Refugio Counties Society—"Importance of Lawyer-Physician Relationship," Philip Overton, Austin; "Asiatic Flu," Dr. Hardy A. Kemp, Houston; and "The Case of the Doubting Doctor," a motion picture.

Tom Green-Coke-Crockett-Concho-Irion-Sterling-Sutton-Schleicher Counties Society—"Eosinophilia in the Peripheral Blood and in the Peritoneal Exudate Following Intraperitoneal Administration of Blood in Animals," Dr. John S. Chapman, Dallas.

Travis County Society—Former governor Allan Shivers addressed the society on the need for a third party which would reflect the thinking of those who want to foster individual enterprise, emphasize local governmental rights and duties, and curtail the centralization of power. Three resolutions were adopted by the *Travis County Society* which included one in opposition to the inclusion of physicians under social security, another opposing the construction of more Veterans Administration hospital facilities, and the third opposing the Forand bill to expand the social security program into the medical and hospital care field, which is due for congressional consideration.

Viscardi to Speak At Three Inaugurals

Three of the largest county medical societies in Texas will hear Henry Viscardi, Jr., president of Abilities, Inc., Albertson, N. Y., at their January banquets at which new officers will be installed. Mr. Viscardi will be with the Dallas County Medical Society in Dallas on Tuesday, January 14; Bexar County Medical Society, San Antonio, January 15; and Harris County Medical Society, Houston, January 16.

MR. VISCARDI

One of only three nonmedical recipients of a citation for outstanding service from the American Medical Association, Mr. Viscardi received this honor at the 1957 AMA annual session. Member of the faculty of New York University College of Medicine, New York University-Bellevue Medical Center; member of the board of trustees of Adelphi College, Garden City, N. Y.; and recipient of honorary doctor of laws degrees from Fordham and Long Island Universities, Mr. Viscardi is a member of the National Advisory Council of the Department of Health, Education, and Welfare Division of Vocational Rehabilitation. He has received numerous awards for his work with handicapped persons and is author of an autobiographical book and numerous magazine articles telling of his experience in overcoming physical handicaps himself and helping others to do so.

Subject of Mr. Viscardi's talks before the medical societies will be "America's 192,000 Disabled Doctors and Their 33,000,000 Disabled Patients." In each host city he also will make appearances before civic clubs, speaking on "Humanation—America's Answer to the Russian Satellite."

Dr. Andrew B. Small will be installed as president of the Dallas County Society at the banquet featuring Mr. Viscardi. Master of ceremonies will be Dr. Harold A. O'Brien, retiring chairman of the board of directors. Dr. Glenn Carlson is retiring president. Formally attired dignitaries at the head table will include past presidents wearing their past president's medallions.

In San Antonio, Dr. Charles W. Tennison will take office as president, succeeding Dr. J. B. Copeland. Presidents of a number of local organizations will be guests.

Dr. J. Griffin Heard will serve as president for the coming year in Harris County; Dr. Moise D. Levy will be the outgoing president. Dr. Donald M. Gready will be recognized as president-elect.

Tarrant County Inaugural Banquet.—Tarrant County Medical Society also will hold an inaugural banquet next month, on January 7, in Fort Worth. James C. Worthy, Chicago, vice-president of Sears Roebuck Company, will speak. To be installed as president is Dr. William E. Flood; Dr. James A. Hallmark is the 1957 president.

Harris Medical Society Selects Executive Secretary

John C. Lee, Miami, Fla., the first man with executive leadership training to be named executive secretary of the Harris County Medical Society, assumed his duties in Houston on December 1.

MR. LEE

For the past 5 years, he has served as the executive secretary of the Dade County Medical Association in Miami. He previously served as regional manager for Blue Cross-Blue Shield in Florida. In Miami, he was an active member of the Miami Rotary Club. He also was a member of the board of directors of the better business division of the Chamber of Commerce, health division of the Welfare Planning Council, and Medical Society Executives' Conference. Mr. Lee served in the Air Force, starting as an aviation cadet in 1942 and ending with a commission as a captain.

Mr. Lee is married and has 3 children. He received his education from the University of Florida, Gainesville, and the State University of Iowa, Iowa City.

Harris County Turns Down Branch Organization

The Harris County Medical Society has voted against the establishment of geographical branches with the business of the society being carried on largely by a representative body of delegates from the various branches. The decision was reached October 25 in a Houston meeting at which a report of a special committee authorized to prepare revisions in the by-laws that would have accomplished the reorganization failed of adoption by a vote of 104 for, 85 against (although a majority favored the new plan, a two-thirds vote is necessary to change the by-laws).

The Harris County action in considering a branch society organization was legalized by the adoption last April of amendments to the By-Laws of the Texas Medical Association providing that "component county medical societies having over one hundred members and with congested divided areas may be allowed to establish branch societies" provided that (1) 25 is the minimum membership for a branch society, with such members residing and practicing in the area; (2) at least 80 per cent of members practicing in a semi-isolated section petition for establishment of the branch; (3) approval is by a two-thirds vote of the parent society; (4) approval of the society's action is obtained from the Board of Councilors by a two-thirds vote; (5) only a member of the parent society may be a member of a branch society, and disciplinary jurisdiction remains with the parent society; and (6) the parent society may abolish the branch with approval of the Board of Councilors.

For some years Harris County Medical Society has had an East Harris branch that has held independent scientific meetings, and Jefferson County Medical Society has had two branches, Beaumont and Port Arthur, for certain scientific activities. However, the effort just defeated was the first attempt to effect a basic reorganization of a county medical society in Texas along branch lines. Such societies have been in operation successfully elsewhere in the nation in heavily populated areas.

A mail ballot three years ago resulted in an 80 per cent favorable return on the suggestion that a representative government for Harris County Medical Society be considered.

A special committee consisting of the standing by-laws committee, the president, the president-elect, the six immediate past presidents, and the immediate past and the present Ninth District Councilor was named. Dr. J. Charles Dickson, Houston, was chairman.

The by-law changes recommended by this committee would delegate to a representative body the power to decide policies, make decisions, elect and try members, and carry on other work of the society. This representative body would be made up of officers of the society, representatives-at-large, representatives from branches, and the chairmen of the boards of censors, medical jurisprudence and public relations, and adjudication and medical testimony. The officers and representatives-at-large would be elected by a mail ballot by the entire membership; the representatives from branches by the members of the branches. Boards, commissions, and state delegates would be elected by the representative body. Committees would be appointed by the president with approval of the representative body.

The representative body, according to the proposed by-laws, would meet monthly, with all members welcome to attend but without the right to participate unless invited by the representative body. The society as a whole would meet once a year for installation of officers and at other times for special scientific programs.

The society would be divided into geographical branches, depending upon location of doctors' offices. Each branch would have its own officers and meet for scientific and business purposes. Each branch would be allowed a sum of money for expenses in the society budget and could pass by-laws not in conflict with county and state by-laws.

A referendum arrangement would permit issues to be put before the entire society membership for mail vote, in which a majority vote would be decisive and binding on the representative body.

In discussion of the proposed reorganization of the Harris society, proponents of the new by-laws pointed out that the society has grown so (1,335 members) that a town hall type of meeting is impossible for transacting business, that an organization appropriate for 750 members breaks down when the society doubles in size. They stated that present voting does not reflect a cross-section of the society, but rather of a small group particularly interested in the given issue and therefore at the meeting. Most business meetings have only about 75 members present so that possibly 40 members can decide issues. Even for controversial subjects, the attendance may be 250 to 300. In a representative form of society government, the proponents pointed out, members might express their opinions to their representatives and share in deciding issues. Members of the East Harris Society have been responsive in attending meetings for scientific programs and to discuss problems later brought before the parent society. As only those with a special interest in an issue come to vote, the society may vote one way at one meeting and another way a month or two later after opinion has been aroused; this instability has caused criticism among laymen, the proponents of the new plan declared. The executive board of 12 persons now carries on work of the society between meetings and makes many decisions; enlarging this executive group into a representative body of 40 to 45 members would provide a broader and more representative base for deciding issues.

Those opposed to the revision of the by-laws indicated in the discussion that it would be impossible under the new plan for the individual member to express himself on questions coming before the society or to vote directly on problems affecting him. The proposed organization would make it possible for a small group of doctors to run the society as a clique. Such an arrangement would be undemocratic and against the American way of life. The proposed system, they said, would lessen interest in the society in that members would feel they had no direct part to play in deciding issues before the society. The present system is working well enough, the opposition stated, so why make a change? Some voting against the measure explained that they did not understand how the plan would work and therefore did not feel they could support it.

Although in rejecting the branch society–representative governing body proposal the Harris County Medical Society took no steps toward reconsideration of such a proposal in the future, some members have expressed the opinion that the general idea, perhaps with modifications, is one which is worthy of further discussion within the next few years.

WOMAN'S AUXILIARY

Baby-Sitters Trained As Part of Safety Program

"GEMS" is the title of the organization aided by members of the Woman's Auxiliary to the Texas Medical Association which provides trained baby-sitters to serve as "good emergency mother substitutes" as a part of the safety program. A course outline has been prepared and is available to inform sitters and parents about their respective responsibilities in child care.

The Conference on Physicians and Schools, to be held in Austin January 7-8, will provide an excellent opportunity for the doctor and his wife to become better qualified as health leaders in their local schools. Sooner or later a doctor's wife is called upon to serve as health chairman, president, or board member for the school. In any case she is considered an authority or counsel in health matters, and it would be to her great advantage to arm herself with information about health activities in schools throughout the nation and to understand better the problems confronting school administrators in health matters.

It will be a wise physician who will be certain that his wife joins him in attending the Symposium on Legislation, also in Austin, January 18. If he is unable to leave his practice, it is important that his wife be present to hear the presentations that she may interpret latest legislation for him and the lay public with whom she is in daily contact.

Projecting the philosophy of "GEMS"—that of trained substitutes—the doctor's wife who makes it her business to accept the responsibilities of being a spokesman for her hus-

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Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

band and his profession will be an invaluable aid throughout her busy days.

Auxiliary members are eager to accept the challenge, as the purpose of their organization as defined includes "serving to supplement or take the place of."

RECENT DEATHS

DR. JOHN Y. BATTENFIELD

Dr. John Young Battenfield, Snyder, Texas, died September 17, 1957, of a heart attack.

Dr. Battenfield was born October 24, 1912, in Pryor, Okla., and was the son of John Young and Ruth (Sims) Battenfield. After receiving his preliminary education in Granite, Okla., he was graduated from the University of Oklahoma, Norman, in 1934 and the University of Oklahoma School of Medicine, Oklahoma City, in 1938. He served his internship at the United States Marine Hospital, Seattle, and did postgraduate work (resulting in a master of public health degree) at Johns Hopkins University, Baltimore, and at the United States School of Tropical Medicine, Washington. He was a member of the Oklahoma State Health Department for 4 years before serving as a major in a parachute infantry division of the United States Army in Panama, North Africa, and Europe, where he was presented the Bronze Star and other medals.

DR. JOHN Y. BATTENFIELD

After the war he was medical director at the University of Oklahoma before going to the Firestone Hospital, Cape Palmas, Liberia, which country awarded him the Gold Medal of Honor. Later he became director of medical services for the government of Guam in Agana, and then was physician in charge for the International Bechtel Company in Jeddah, Saudi Arabia. In 1952, he went to Snyder where he practiced until his death.

He was a member of the Borden-Dickens-Garza-Kent-King-Scurry-Stonewall Counties Medical Society, Texas Medical Association, and American Medical Association. He was also a member of the Royal Society of Tropical Medicine, Industrial Medical Association, and the Railway Surgeons Association. He belonged to the Rotary Club, Veterans of Foreign Wars, and the Methodist Church.

Dr. Battenfield was a partner in a hunting ranch near Snyder and raised game birds for the ranch.

Dr. Battenfield and Miss Jeannine Patras were married in Cannes, France, on July 18, 1945. Survivors include his wife; three children, Myriam, Lila, and Edward; and a sister, Mrs. John Haverty, San Francisco.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

DR. WARREN E. MASSEY

Dr. Warren Eugene Massey, Dallas, Texas, died of coronary artery disease September 12, 1957.

He was born November 4, 1895, in Falls County, and was the son of Walter and Margaret Angeline Massey. After being graduated from Rosebud High School, he attended the University of Valparaiso, Ind., and was graduated from Southern Methodist University. He also was graduated from Baylor University College of Medicine in 1920, and served his internship and residency at Baylor Hospital. He served in the Naval Reserves from 1917 to 1921.

In practice in Dallas since 1923, Dr. Massey taught at Baylor University College of Medicine from 1923, when he was an assistant in obstetrics, until 1943, at which time he held the position of full professor. He then became clinical professor of obstetrics at Southwestern Medical School of the University of Texas and taught there until 1955. Dr. Massey was a consultant in obstetrics and gynecology at Baylor University Hospital. He also served on the courtesy staff of the Methodist, St. Paul, and Parkland Hospitals. He also had written numerous papers on obstetrics and gynecology.

DR. WARREN E. MASSEY

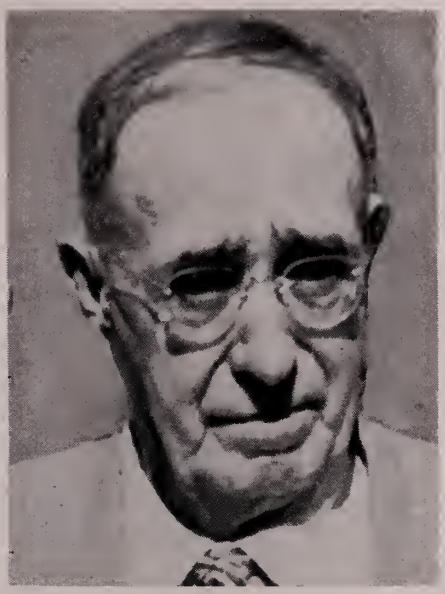
He was a member of the Texas and American Medical Associations through the Dallas County Medical Society. He served as chairman of the Section on Obstetrics and Gynecology for the 1943 annual session of the Texas Medical Association, and was elected an honorary member of the Association in 1956. He also was a fellow of the American College of Surgeons, and a member of the Dallas-Fort Worth Obstetrics and Gynecology Society, Southern Medical Association, Dallas Southern Clinical Society, and American Society for the Study of Sterility. He belonged to the Phi Rho Sigma fraternity, Masonic Lodge, and Knights Templar.

Dr. Massey and Miss Dorothea Carnes were married January 27, 1929. Survivors include his wife; two daughters, Miss Mary Massey and Mrs. William C. Turner, both of Dallas; two brothers, J. T. Massey of Anna, Collin County, and William I. Massey of San Francisco; and one granddaughter.

DR. JAMES L. DUBOSE

Dr. James Lafayette DuBose, Wells, Texas, died August 24, 1957, in a Jacksonville hospital of cancer of the colon.

Dr. DuBose, born December 11, 1877, in Jasper, was the son of Joe and Susan DuBose. He received his preliminary education at schools in Jasper and was graduated from the old Gate City Medical College, Texarkana, in 1904. He also did postgraduate work at the Memphis Hospital Medical College, Tenn., and Tulane University, New Orleans. He practiced in San Augustine before moving to Wells where he was the only doctor.



DR. JAMES L. DUBOSE

He was a member of the American Medical Association, Texas Medical Association, and Cherokee County Medical Society. He had been president of his county society and since 1956 had been an honorary member of the state Association. Dr. DuBose belonged to the Masonic Lodge and to the Baptist Church.

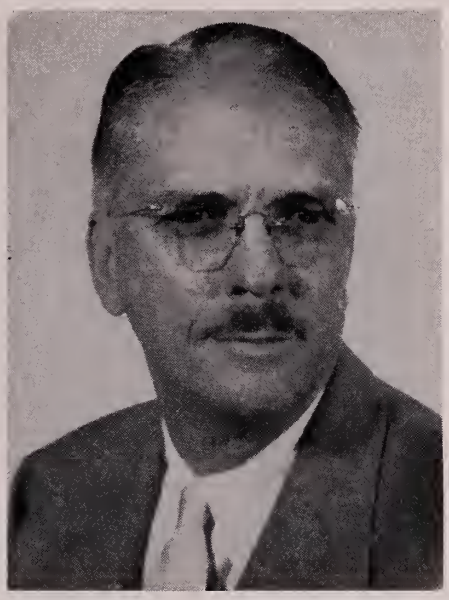
Dr. DuBose and Miss Mamie G. Ward were married at Cottondale, Ala., in 1916. He is survived by his wife, four sons, W. C. DuBose, Waco; J. H. DuBose, Brownsboro; J. D. DuBose, Wells; and C. W. DuBose, Corsicana; and a sister, Mrs. Roxie Stroud, Hemphill.

DR. WILLIAM M. LIVELY, JR.

Dr. William McCain Lively, Jr., Dallas, Texas, died October 6, 1957, in Colorado Springs, Colo., from an accidental drowning.

Dr. Lively, the son of Dr. William McCain and Ola (Baugh) Lively, was born September 2, 1908, in Dallas. He received his preliminary education in Dallas public schools and was graduated from Southern Methodist University in 1931 and Baylor University College of Medicine in 1936. He served his internship at Jackson Memorial Hospital, Miami. Dr. Lively, who stayed in Dallas during his entire career, began practicing with his father and continued in active practice until his death. He was a captain and flight surgeon of the Air Transport Command in the South Pacific during World War II.

He was a member of the Texas Medical Association and



DR. WILLIAM M. LIVELY, JR.

American Medical Association through the Dallas County Medical Society. He was a member of the county, state, and national branches of the American Academy of General Practice, serving as treasurer of the county group in 1956, and on the credentials committee of the national organization. He was on the staff of the Methodist Hospital. He belonged to the Methodist Church, Oak Cliff Country Club, Masonic Lodge, and Shrine.

Dr. Lively and Miss Bessie Pinkoson were married January 13, 1938, at Stuart, Fla. She survives, as do three children, Miss Susie Lively, William McCain Lively, and Charles Richard Lively, all of Dallas; a brother, C. B. Lively, Dallas; and two sisters, Mrs. H. D. Yeargan, Dallas, and Mrs. Robert Porter, Sherman.

DR. THOMAS M. PRIDEAUX

Dr. Thomas Moore Prideaux, Lubbock, Texas, died October 12, 1957, of cerebral hemorrhage in Washington, D. C., where he was attending George Washington University on a surgery fellowship.

Born on May 27, 1920, in Lott, he was the son of Thomas Robert and Mary Donna (Moore) Prideaux. He attended grade and high schools in Lubbock, received his bachelor of arts degree from Texas Technological College, Lubbock, and

received his medical degree from Tulane University School of Medicine, New Orleans. Dr. Prideaux interned and took his residency at Scott and White Hospital, Temple. He served for 2 years in the United States Navy with the rank of lieutenant, junior grade. In 1950, he began practice in Haskell. Later in 1950, he moved to Lamesa, where he operated a clinic until 1956.

He was a member of the Texas Medical Association and the American Medical Association through the Dawson-Lynn-Terry-Gaines-Yoakum Counties Medical Society, which he had served as president and secretary. He also was a member of the American Academy of General Practice and belonged to the Presbyterian Church.

Surviving Dr. Prideaux are his wife, the former Miss Norma Jean Spencer of Ralls, whom he married October 9, 1943, in Lubbock; two children, Judith Lynn and Thomas Spencer Prideaux; a sister, Mrs. J. M. Moxley; and his parents, all of Lubbock.

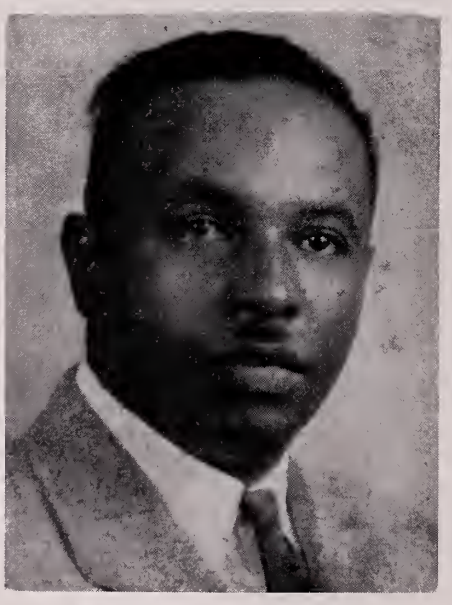
DR. JAMES C. WALLACE, SR.

Dr. James Carroll Wallace, Sr., Beaumont, died August 6, 1957.

Dr. Wallace was born September 25, 1890, in Beaumont, and was the son of Carroll and Roxie (Simpson) Wallace. He attended Charlton Pollard High School in Beaumont and received his bachelor of arts degree from Wiley College, Marshall, in 1912. After being graduated from Howard University School of Medicine, Washington, D. C., in 1916, Dr. Wallace interned at Kansas City General Hospital, Kansas City. He did postgraduate work at the Baylor University College of Medicine, Houston; Flint Goodridge Hospital of Dillard University, New Orleans; and the InterState Post Graduate Assembly. He also served with the Army Medical Corps in World War I as first lieutenant.

He began practice in Beaumont in 1919 and there he continued active practice until his death.

Dr. Wallace was a member of the Texas and American Medical Associations through the Jefferson County Medical Society. He also was a member of the Southeast Texas Medical, Dental, and Pharmaceutical Society, which he served as a past president, the board of the Beaumont Tuberculosis Association, the executive committee of the Lone Star State Medical Society, and the National Medical Association. He also was a member of the Goodwill Council, St. Paul Methodist Church, and the Neches Street Branch of the YMCA, which he served as member of the board and as president for 13 years. He was voted the outstanding citizen by the YMCA in 1955. He was supervisor of the Central Hospital Clinic in Beaumont.



DR. JAMES C. WALLACE, SR.

Mrs. Wallace died January 16, 1951. Survivors include four children, Dr. Charles R. Wallace, S. N. Wallace, and William C. Wallace, Beaumont, and James C. Wallace, Jr., D.D.S., Chicago; his mother, Mrs. Roxie Patillo, Beaumont; two brothers, Henry S. Alexander, Los Angeles, and Jack Patillo, Beaumont; and two sisters, Mrs. Marguerite Johnson and Mrs. Cleo Love, both of Beaumont.

DR. EVERETTE L. DYE

Dr. Everette Lee Dye, Jr., Plainview, Texas, died in a local hospital, November 5, 1957, of a heart attack.

Born June 4, 1907, in Tulia, Dr. Dye was the son of Dr. Everette Lee and Minnie (Donohoo) Dye. He attended Plainview High School and Wayland College in Plainview and was graduated from Stanford University, Palo Alto, Calif., in 1927 and Baylor Medical College, Dallas, in 1931. He served his internship at the Roper Hospital, Charleston, S. C., and then began practice in Plainview where he continued until his death except for 3 years he served as a captain with the Air Force Medical Corps at Victoria in World War II.

Dr. Dye was a former president and secretary of the Hale-Floyd-Briscoe-Swisher Counties Medical Society, and medical adviser, at the time of his death, to the Hale County Chapter of the American Cancer Society. He belonged to the American Medical Association, Texas Medical Association, Texas Academy of General Practice, and American Academy of General Practice. He was affiliated with Alpha Mu Pi Omega medical fraternity and Theta Chi social fraternity. He served on the Plainview Independent School Board and at one time was active in the Chamber of Commerce and Board of City Development. Dr. Dye was a licensed amateur radio operator.

Dr. Dye and Dr. Mary Alice Ramsdell, formerly of Austin, were married March 14, 1931, in Dallas. Dr. Dye is survived by his father, now of Manhattan, Kan.; wife; and two children, Lee, stationed with the Army in Paris, France, and Susannah, a student at the University of Texas.

DR. HUGH W. HARDY

Dr. Hugh Winfred Hardy, Jasper, Texas, died July 14, 1957, in Galveston.

Born February 20, 1887, in Newton, Texas, Dr. Hardy was the son of William W. and Mary (Nimitz) Hardy. He attended the University of Texas and Tulane University, and was graduated from Tulane University School of Medicine in 1909. After serving his internship at the Charity Hospital in New Orleans, Dr. Hardy practiced in Newton until 1917. He then went to Jasper where he stayed until his retirement about 4 years ago.

He was a member of the Texas and American Medical Associations through the Jasper-Newton Counties Medical Society.

Dr. Hardy was married July 11, 1909, in Welsh, La., to Miss Olive Burke Singleton, who died April 6, 1951.

Survivors include a daughter, Mrs. James L. Coffee, Baton Rouge; his mother, Mrs. W. W. Hardy, Newton; and two sisters, Mrs. Roy Koenig, Kerrville, and Mrs. V. Clay, Woodville.

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Abbreviations: (AMA), American Medical Association; (CEC), Current Editorial Comment; (CPC), Clinicopathologic Conference; (CR), Case Report; (CS), County Society; (E), Editorial; (L), Library; (N), News and Miscellaneous; (O), Original Article; (PP), President's Page; (TMA), Texas Medical Association; (WA), Woman's Auxiliary.

All items relating to the Woman's Auxiliary are under "Auxiliary, Woman's"; books reviewed are under "Book Notices"; book reviewers are under "Book Reviewers"; motion pictures reviewed are under "Motion Pictures"; deceased physicians are listed under "Deaths"; most other items are listed by title, subject, and author.

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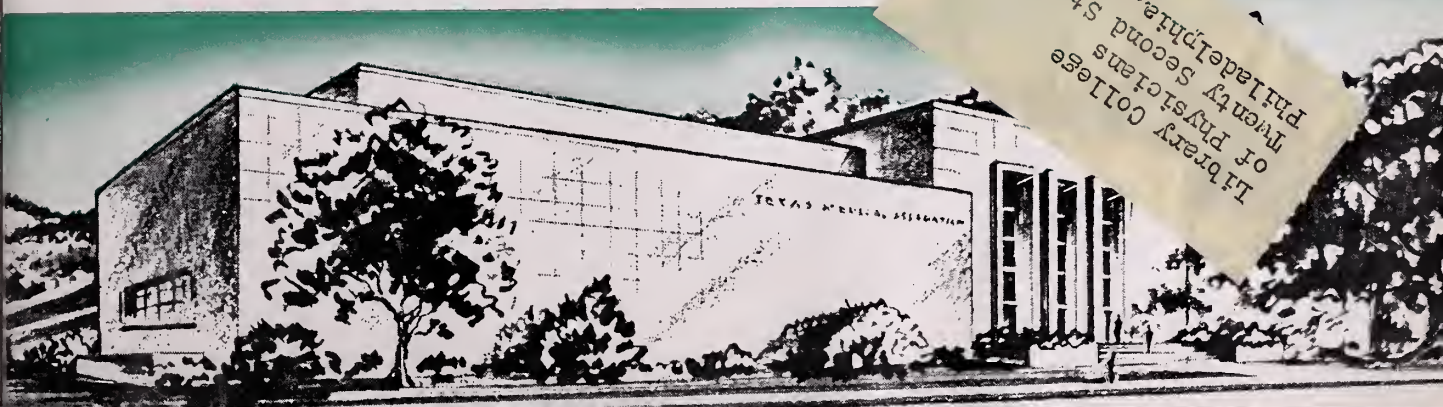

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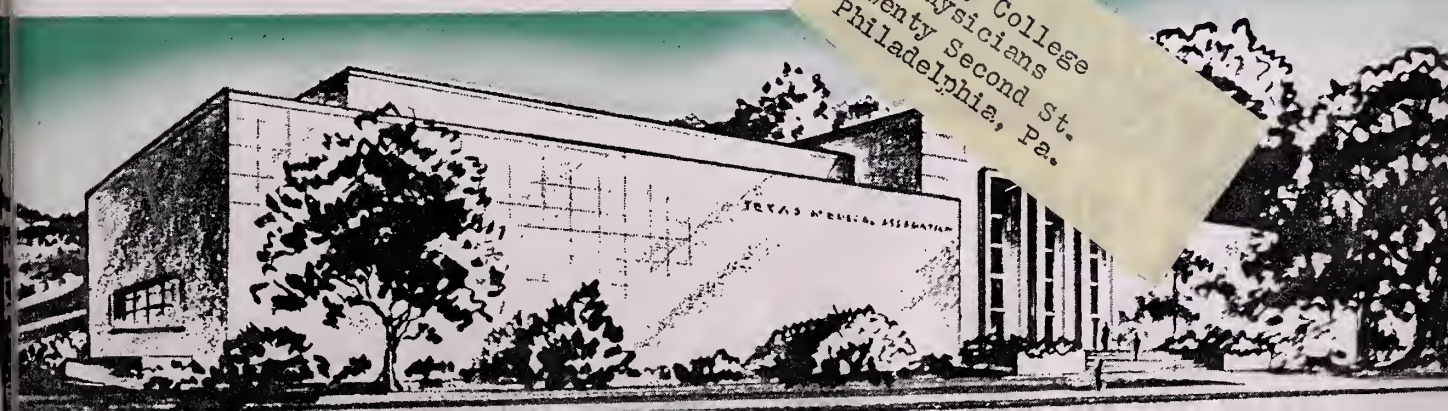

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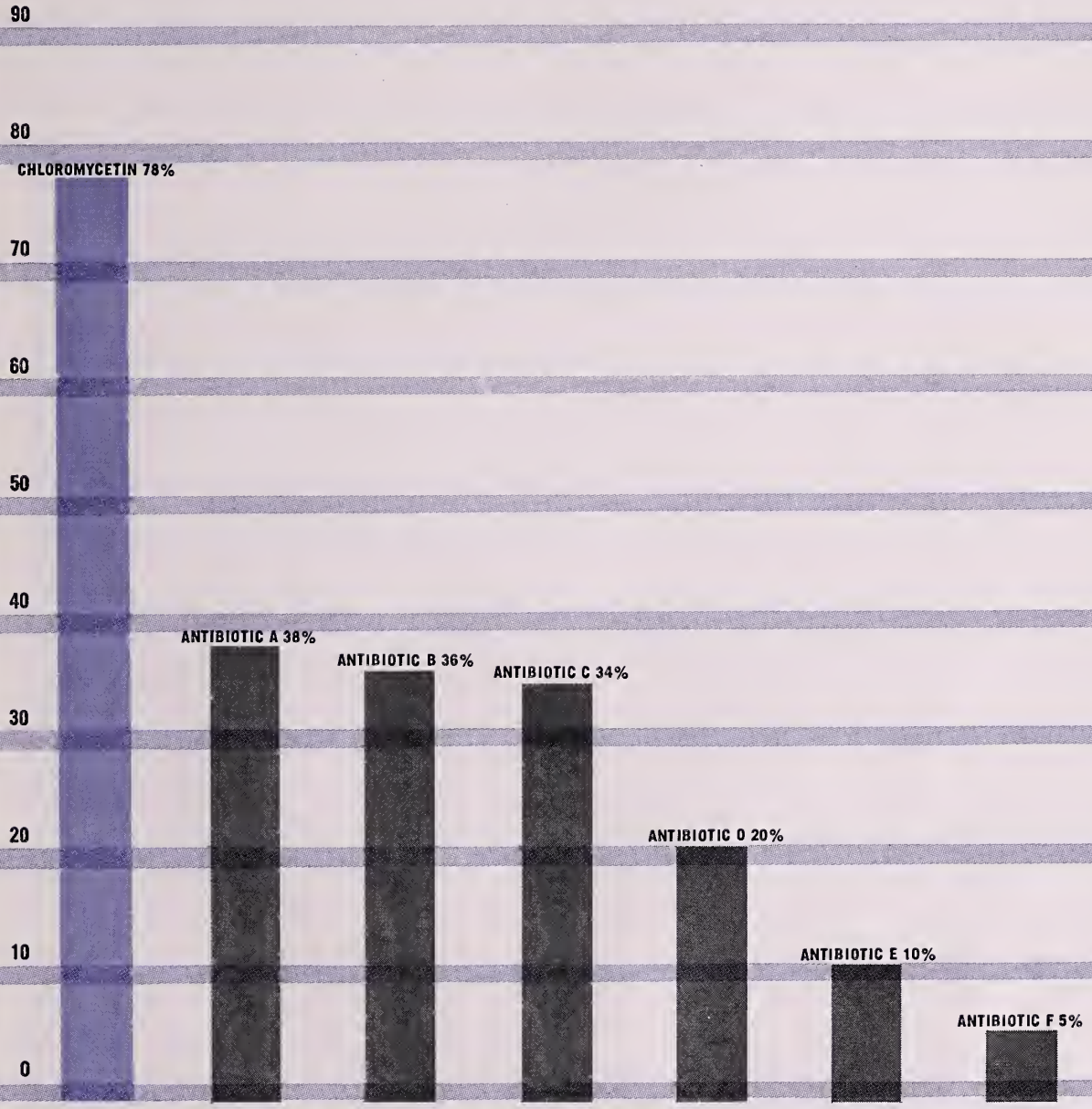

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